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Reference Guide Overview

Publication Date: 2020-09-17

This document contains two sections:

The WebUI Reference is organized to match the Uyuni WebUI. As you work with the WebUI, you can consult the WebUI Reference to find out more about the section you are working on. For help on setting up and using the WebUI, see [Installation › Webui-setup › ].

The spacecmd Reference is intended to help you work with the spacecmd command line interface. It contains a complete list of spacecmd commands, organized alphabetically, and their correct usage.
WebUI Reference

Home Menu

The Home section is a dashboard that contains a summary of your current Uyuni status, including tasks, client information, and critical security updates.

For more information about setting up and using the Uyuni WebUI, see Installation › Webui-setup ›.

Home Overview

The Home › Overview section is a dashboard that contains a summary of your current Uyuni status, including tasks, client information, and critical security updates.

For more information about setting up and using the Uyuni WebUI, see Installation › Webui-setup ›.

Notification Messages

The Home › Notification Messages section shows all current messages produced by Uyuni. By default, messages will remain current for thirty days. After this period, messages are deleted whether or not they are marked as read.

To see unread messages, navigate to the Unread Messages tab. To see all messages, navigate to the All Messages tab.

Click [ Refresh ] to update the list.

Perform bulk actions by checking messages in the list. Click [ Delete selected messages ] to bulk delete messages. Click [ Mark selected as read ] to bulk read messages.

Table 1. Notification Message Severity Statuses

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>📣</td>
<td>Information</td>
<td>Client onboarding has failed.</td>
</tr>
<tr>
<td>🚨</td>
<td>Warning</td>
<td>Channel synchronization has completed.</td>
</tr>
<tr>
<td>✂</td>
<td>Error</td>
<td>Channel synchronization has failed.</td>
</tr>
</tbody>
</table>

User Account Menu

The Home › User Account section allows you to change user account preferences.
My Account

The **Home › User Account › My Account** section allows you to change user account preferences.

Modify your personal information, such as name, password, and title from the **Home › User Account › My Account** page. To modify this information, make the changes in the appropriate text fields and click the [ **Update** ] button at the bottom.

If you forget your password or username, navigate to WebUI sign in page, click [ **About** ], and click [ **Lookup Login/Password** ]. Enter the username or email address, and click [ **Send Password** ] or [ **Send Login** ] to have the missing information sent to you.

Addresses

The **Home › User Account › Addresses** section allows you set your mailing, billing, and shipping addresses, and associated phone numbers.

Click [ **Fill in this address** ] or [ **Edit this address** ] below the address to be modified or added, make your changes, and click [ **Update** ].

Change Email

The **Home › User Account › Account Deactivation** section allows you to set the email Uyuni sends notifications to.

Enter your new email address and click the [ **Update** ] button. Invalid email addresses, including those ending in `@localhost` are filtered and rejected.

If you would like to receive email notifications about patch alerts or daily summaries for your systems, ensure you have checked the **Receive email notifications** option in **Home › My Preferences** section.

Account Deactivation

The **Home › User Account › Account Deactivation** section allows you to cancel your Uyuni user account.

When you click [ **Deactivate Account** ] your user account will be deleted, you will be signed out, and you will not be able to sign back in.

If you do this by accident, you will need to contact your Uyuni Administrator to reactivate your user account.

If you are the only Uyuni Administrator for your organization, you can not deactivate your account.
My Preferences

The **Home › My Preferences** section allows you to configure Uyuni WebUI options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Notification</td>
<td>Receive email for client and Taskomatic notifications, including a daily summary email.</td>
<td>Checked</td>
</tr>
<tr>
<td>Uyuni List Page Size</td>
<td>Maximum number of items that can appear in a list on a single page.</td>
<td>25 entries</td>
</tr>
<tr>
<td>&quot;Overview&quot; Start Page</td>
<td>Select the information panes to display on the <strong>Home › Overview</strong> page.</td>
<td>All checked</td>
</tr>
<tr>
<td>Time Zone</td>
<td>Set your local timezone.</td>
<td>System timezone</td>
</tr>
<tr>
<td>CSV Files</td>
<td>Select whether to use comma or semi-colon delimiters when producing downloadable CSV files.</td>
<td>Comma</td>
</tr>
</tbody>
</table>

For more information about setting up and using the Uyuni WebUI, see [Installation › Webui-setup › ].

My Organization

The **Home › My Organization** section allows you to configure your current organization.

For more information about organizations, see [Administration › Organizations › ].

Organization Configuration

The **Home › My Organization › Configuration** section allows you to configure your current organization.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable staging contents</td>
<td>For clients in this organization, allow content staging by default.</td>
<td>Unchecked</td>
</tr>
<tr>
<td>Enable Errata E-mail Notifications</td>
<td>For users in this organization, send email notifications when errata (patches) are available.</td>
<td>Checked</td>
</tr>
<tr>
<td>Enable Software Crash Reporting</td>
<td>In case of a crash, a log of the crash is saved to file.</td>
<td>Checked</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
<td>Default</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Enable Upload of Crash Files</td>
<td>Allow crash log files to be uploaded to SUSE.</td>
<td>Checked</td>
</tr>
<tr>
<td>Crash File Upload Size Limit</td>
<td>The maximum crash log file size (in MB) that can be uploaded to SUSE.</td>
<td>2048 MB</td>
</tr>
<tr>
<td>Enable Upload of Detailed SCAP Files</td>
<td>Allow detailed SCAP content files to be uploaded for auditing.</td>
<td>Unchecked</td>
</tr>
<tr>
<td>SCAP File Upload Size Limit</td>
<td>The maximum SCAP file size (in MB) that can be uploaded.</td>
<td>2048 MB</td>
</tr>
<tr>
<td>Allow Deletion of SCAP Results</td>
<td>Allow SCAP results to be deleted after the audit is complete.</td>
<td>Checked</td>
</tr>
<tr>
<td>Allow Deletion After</td>
<td>The number of days after an SCAP audit is complete, that results can be deleted.</td>
<td>90 days</td>
</tr>
</tbody>
</table>

- For more information about content staging, see [Administration › Content-staging ›].
- For more information about OpenSCAP, see [Administration › Openscap ›].
- For more information about organizations, see [Administration › Organizations ›].

**Organization Trusts**

The **Home › My Organization › Organization Trusts** section shows the trusts that you have established within your organization. This section also shows the channels that are available to other users through trusts.

For more information about organization trusts, see [Administration › Organizations ›].

**Organization Configuration Channels**

The **Home › My Organization › Configuration Channels** section shows the configuration channels available within your organization. Configuration channels can be created in the Uyuni WebUI by navigating to **Configuration › Channels**. Apply configuration channels to your organization using the Uyuni WebUI.

For more information about organizations, see [Administration › Organizations ›].

**Systems Menu**

The **Systems** section allows you to manage your client systems.

For more information about managing clients, see [Client-configuration › Client-config-overview ›].
Systems Overview

The **Systems › Overview** section lists all client systems registered to the Uyuni Server. The list contains information about the clients, including available software updates, the base channel they are subscribed to, and whether they are a traditional or Salt client.

Click the name of a client to go to the **System Details Overview** page. For more information about the **System Details Overview** page in the WebUI, see [Reference › Systems › ].

Check a client to add it to the system set manager. For more information about the system set manager, see [Client-configuration › System-set-manager › ].

Click [Add Systems] to go to **Systems › Bootstrapping**. For more about bootstrapping new clients, see [Reference › Systems › ].

For more information about managing clients, see [Client-configuration › Client-config-overview › ].

System Details

The **System Details** section allows you to manage the details for a chosen client. To get to this section, click the name of a client anywhere throughout the WebUI to see the relevant **System Details** page for the client.

The **System Details** section is divided into tabs and subtabs. Each tab and subtab has its own section in this document.

The **Systems › Details › Overview** subtab is displayed by default. Which tabs are available is dependent on the system type of the client you have selected.

For more information about managing clients, see [Client-configuration › Client-config-overview › ].

Overview

The **Systems › Details › Overview** section shows a summary of information about the selected client, including the current system status. This subtab is displayed by default when you click the name of a client anywhere throughout the WebUI.

Click [Delete System] to delete the system profile. Deleting a system profile will not destroy or remove the client, but you will no longer be able to manage it with Uyuni. If you delete a system profile by mistake, you can re-register the client using bootstrap.

The **Systems › Details › Overview** subtab is split into sections:

**System Status**

The section shows the current status of the client. If no action is required for this client, the status is **System is up to date**.
If the client has new software ready for installation, the status is **Software Updates Available**, along with details of updates. Apply updates by navigating to **System Details › Packages**.

**System Info**

This section shows general information about the client.

**Table 4. System Info Columns**

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostname</td>
<td>The hostname used by the client with the Uyuni Server.</td>
<td>-</td>
</tr>
<tr>
<td>FQDN</td>
<td>The fully qualified domain name of the client.</td>
<td>Shown only if it differs from the host name.</td>
</tr>
<tr>
<td>IP address</td>
<td>The IPv4 IP address of the client.</td>
<td>-</td>
</tr>
<tr>
<td>IPv6 address</td>
<td>The IPv6 IP address of the client.</td>
<td>-</td>
</tr>
<tr>
<td>Minion ID</td>
<td>The minion ID of the client.</td>
<td>Salt clients only.</td>
</tr>
<tr>
<td>Virtualization</td>
<td>The type of virtualization used by the client.</td>
<td>Virtualized clients only.</td>
</tr>
<tr>
<td>UUID</td>
<td>The universally unique identifier.</td>
<td>-</td>
</tr>
<tr>
<td>Kernel</td>
<td>The kernel currently in use on the client.</td>
<td>-</td>
</tr>
<tr>
<td>Uyuni System ID</td>
<td>A unique identifier generated by Uyuni when the client is registered.</td>
<td>-</td>
</tr>
<tr>
<td>Activation key</td>
<td>The activation key used to register the client.</td>
<td>Remains blank if the client has not been activated.</td>
</tr>
<tr>
<td>Installed products</td>
<td>Software products currently installed on the client.</td>
<td>-</td>
</tr>
<tr>
<td>Lock status</td>
<td>Indicates whether the client is locked.</td>
<td>Traditional clients only. Locked Salt clients instead show a yellow banner on this page.</td>
</tr>
</tbody>
</table>

For more information about system locks, see [Client-configuration › System-locking › ].

**Subscribed Channels**

This section shows the base and child software channels this client is subscribed to.

Click [Alter Channel Subscriptions] to change the channel subscriptions for this client. Click a channel name to go to the **Channel Details** tab.

For more information about channels, see [Client-configuration › Channels › ].
System Events

This section shows the most recent system events for this client.

Table 5. System Events Columns

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checked in</td>
<td>The time that the client last successfully checked in with the Uyuni Server.</td>
</tr>
<tr>
<td>Registered</td>
<td>The time that the client registered with Uyuni.</td>
</tr>
<tr>
<td>Last booted</td>
<td>The time that the client was most recently started or rebooted.</td>
</tr>
</tbody>
</table>

Click [Schedule system reboot] to set a time for the client to reboot. The reboot will occur when the client next checks in with the Uyuni Server after the scheduled time. For more on task scheduling, see [Administration › Task-schedules ›].

System Properties

This section shows further information about the client.

Table 6. System Properties Columns

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>System types</td>
<td>Lists the system type applied to the client. Usually either Salt for Salt clients, or Management for traditional clients.</td>
</tr>
<tr>
<td>Notifications</td>
<td>Lists the current notification options for this client.</td>
</tr>
<tr>
<td>Contact method</td>
<td>The method used by this client to communicate with the Uyuni Server.</td>
</tr>
<tr>
<td>Auto patch update</td>
<td>Indicates if the client is receiving patches automatically.</td>
</tr>
<tr>
<td>Maintenance Schedule</td>
<td>Specifies which maintenance schedule is assigned to this client.</td>
</tr>
<tr>
<td>System name</td>
<td>The system name of the client. By default, this is the host name, but it can be changed.</td>
</tr>
<tr>
<td>Description</td>
<td>General information about the client. By default, this is automatically gathered when the client is registered, but it can be changed.</td>
</tr>
<tr>
<td>Location</td>
<td>The physical location of the client.</td>
</tr>
</tbody>
</table>

For more information about contact methods, see [Client-configuration › Contact-methods-intro ›].

Click [Edit These Properties] to go to System Details › Details › Properties subtab.
Properties

The **Systems › Details › Properties** section allows you to edit details about the selected client, including the system name and details.

### Table 7. Edit System Details Settings

<table>
<thead>
<tr>
<th>Setting Name</th>
<th>Description</th>
<th>Default Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Name</td>
<td>The name of the system to use within the Uyuni WebUI.</td>
<td>The hostname of the client.</td>
</tr>
<tr>
<td>Base System Type</td>
<td>The type of base system used by the client.</td>
<td>Shown for information only, you cannot edit this.</td>
</tr>
<tr>
<td>Add-on System Types</td>
<td>Check additional system types to add features such as build hosts, or monitoring.</td>
<td>Only available system types for this client are shown.</td>
</tr>
<tr>
<td>Notifications</td>
<td>Check to receive notifications of updates or patches, and to include this client in the daily summary.</td>
<td>Checked.</td>
</tr>
<tr>
<td>Auto Patch Update</td>
<td>Check to have available patches automatically applied.</td>
<td>Unchecked.</td>
</tr>
<tr>
<td>Description</td>
<td>This field can contain any text you want.</td>
<td>The operating system, release, and architecture of the system when it first registered to Uyuni.</td>
</tr>
<tr>
<td>Facility Address</td>
<td>The physical location of the client.</td>
<td>Blank</td>
</tr>
</tbody>
</table>

Remote Command

The **Systems › Details › Remote Command** section allows you to run commands remotely on the selected client.

Before doing so, you must first configure the system to accept such commands. For more information about using remote commands, see [Administration › Actions ›](#).

Activation

The **Systems › Details › Reactivation** section allows you to generate reactivation keys for the selected client. Reactivation keys can be used once only to re-register the client and regain all Uyuni settings.

For more information about reactivation keys, see [Client-configuration › Activation-keys ›](#).

Hardware

The **Systems › Details › Hardware** section shows detailed hardware information about the selected client, including architecture, networking, and memory.
Click [Schedule Hardware Refresh] to update this page with the latest hardware information. To change the primary network interface on the client, select the correct interface in the Primary Network Interface field in the Networking section, and click [Update Properties].

Migrate

The Systems › Details › Migrate section allows you to move clients between organizations. Clients can only belong to one organization at any time.

To move a client to a different organization, select the name of the organization in the Organization Name field, and click [Migrate System].

When you move a client to a different organization, channel assignments, system group membership, custom data values, configuration channels, reactivation keys, and snapshots are deleted from the system configuration. You will need to set these values again when the move is complete.

Notes

The Systems › Details › Notes section lists notes about the selected client.

Click [Create Note] to create a new note. Give your note a subject, and add any details you require. Click [Create] to save the note.

Notes are listed in the table with a time stamp of when they were last edited. Click the subject of a note to edit or delete it.

Custom Info

The Systems › Details › Custom Info section lists the custom system information that has been applied to the selected client.

Click [Create Value] to apply a new custom system key to the client. Click the key label to see more information, and to edit the value.

For more information about custom system information, see [Client-configuration › Custom-info ›].

Proxy

The Systems › Proxy section shows all clients connected to the selected client as a proxy. This is only available when the selected client is registered as a Uyuni Proxy.

For more information about setting up a Uyuni Proxy, see [Installation › Install-proxy ›].

Software

The Systems › Software section allows you to manage software on the selected client.
Patches

The Systems › Software › Patches section displays a list of all patches currently available to the selected client.

To apply a patch, check it in the list and click [Apply Patches] to schedule the installation. The Status column in the list shows whether an update has been scheduled. Click the status for more information about the action.

For more information about patching, see [Client-configuration › Patch-management › ].

Packages

The Systems › Software › Packages section allows you to manage packages on the selected client.

Click [Update Package List] to refresh the list of available packages.

The Systems › Software › Packages tab is split into subtabs:

- **List/Remove**
  Lists all packages currently installed on the selected client. Click the name of a package to see more information. To uninstall packages, check the package in the list and click [Remove Packages].

- **Upgrade**
  Lists packages that have newer versions available. Click the name of a package to see more information. To upgrade packages, check the package in the list and click [Upgrade Packages]. Any EULAs will be accepted automatically.

- **Install**
  Lists packages that are available for installation on the selected client. Click the name of a package to see more information. To install packages, check the package in the list and click [Install Selected Packages]. Any EULAs will be accepted automatically.

- **Verify**
  Traditional clients only. Lists packages available for verification against the package repository. Click the name of a package to see more information. To verify a package, check the package in the list and click [Verify Selected Packages]. When the verification is complete, navigate to Systems › Events › History to see the results.

- **Lock**
  Traditional clients only. Lists packages that are locked on the selected client. To lock a package, check the package in the list and click [Request Lock]. To remove a package lock, check the package in the list and click [Request Unlock]. For more information about package locks, see [Client-configuration › System-locking › ].

- **Profiles**
  Compare packages installed on the selected client with a stored profile, or with packages installed on
another client. When the comparison is made, you can choose to modify the selected client to match. To compare with a stored profile, select the profile and click [Compare]. To compare with another client, select the client name and click [Compare].

Non Compliant

Lists packages that are installed on the selected client, but are not available in any of the subscribed software channels.

For more information about packages, see [Client-configuration › Package-management ›].

Software Channels

The Systems › Software › Software Channels section allows you to manage the software channels on the current client.

For more information about software channels, see [Client-configuration › Channels ›].

The Systems › Software › Software Channels subtab is split into sections:

Base Channel

This section shows the base channel the current client is subscribed to, as well as any other available base channels.

Click the chain icon next to a base channel to see more information about the channel. Change the base channel subscription by selecting the new base channel, and click [Next] to schedule the change.

The child channels associated with the base channel are populated in the Child Channels section. Mandatory child channels are pre-selected. Toggle the include recommended switch to also select recommended child channels.

For Salt clients, apply the highstate after changing software channels.

Child Channels

This section shows the software product and child channels associated with the currently selected base channel.

Hover over the information icon next to the channel name to see channel requirements. Click the chain icon next to a base channel to see more information about the channel.

Child channels are can be either recommended or mandatory. Mandatory child channels must be installed for the selected client to use the associated base channel. Recommended child channels should be installed to provide additional packages. All other child channels are optional.

Check the child channels you want to install, and click [Next] to schedule the change.
### SP Migration

The Systems › Software › SP Migration section allows you to upgrade clients to the latest service pack of their underlying operating system. Check the product version you want to upgrade the client to, and click [Select Channels].

For more information about service pack upgrades, see [Upgrade › Client-y-z ›].

### Configuration

The Systems › Configuration section allows you to manage the configuration files for the selected client. Configuration files are distributed with a configuration channel. For traditional clients, configuration files can also be managed directly on a single client.

For more information about configuration channels, see [Client-configuration › Configuration-management ›].

The Systems › Configuration tab is split into subtabs:

#### Overview

The Systems › Configuration › Overview subtab is split into sections:

**Configuration Overview**

This section contained the total number of available configuration files, and channel subscriptions. Click the name of a configuration file or channel to see more information. Click [Subscribe to channels] to subscribe to additional configuration channels.

**Recent Events**

This section shows when the configuration channels was most recently deployed on the selected client. It also shows the most recent time that a comparison was performed.

**Configuration Actions**

This section allows you to deploy or to compare configuration channels on the selected client.

#### View Files

The Systems › Configuration › View Files subtab is split into subtabs for centrally-managed, and locally-managed configuration files. On traditional clients, there is also a subtab for a local sandbox, where you can store configuration files that are still under development.

The Centrally-Managed Files and Locally-Managed Files subtabs both show a list of all available configuration files. Click [View] to see details about the configuration file. Click [Compare] to compare the configuration file to other files, or to various revisions of itself. Click the configuration channel name to see more information about the channel that contains this configuration file. Click the revision number to see additional details about the configuration file.
Deploy Files

The Systems › Configuration › Deploy Files shows a list of available configuration files that can be deployed on the selected client.

Compare Files

The Systems › Configuration › Compare Files shows a list of available configuration files that can be compared to Uyuni managed configuration files. Check the configuration file to compare and click [ Compare Files ] to schedule a comparison. Click the revision number to see additional details about the configuration file. Click the configuration channel name to see more information about the channel that contains this configuration file.

Manage Configuration Channels

The Systems › Configuration › Manage Configuration subtab is split into subtabs:

List/Unsubscribe from Channels

This section shows the list of currently subscribed channels. To unsubscribe the selected client from a configuration channel, check the channel, and click [ Unsubscribe ]. Click the configuration channel name to see more information about the channel that contains this configuration file.

Subscribe to Channels

This section shows the list of configuration channels that are available for the selected client to subscribe to. To subscribe the selected client to a configuration channel, check the channel, and click [ Continue ].

View/Modify Rankings

This section shows the currently subscribed configuration channels, in ranked order. Where settings conflicts occur between configuration channels, channels closer to the top of the list take precedence. To complete subscription to a configuration channel, review the rankings, adjust as necessary using the up and down arrows, and click [ Update Channel Rankings ].

Provisioning

The Systems › Provisioning section allows you to manage provisioning for the selected client. This includes managing and scheduling autoinstallation, booting the selected client, and managing snapshots of the client configuration state.

The Systems › Provisioning tab is split into subtabs:

Autoinstallation

This section displays a list of the available autoinstallation profiles for the selected client. Select a time and date for autoinstallation to re-install the client.

For more information about autoinstallation, see [ Client-configuration › Autoinst-intro ].
Power Management

This section allows you to power on, power off, and reboot the selected client.

This feature uses the IPMI protocol and is managed using a Cobbler profile. The selected client must be IPMI-enabled, and configured to use a power management server.

Complete the details for the power management server, and click the appropriate button for the action to take. Click [Get status] to determine if the client is currently running. Click [Save only] to save the details without taking any action.

Click [Remove Cobbler System Profile] to remove the current client’s system profile from Cobbler. For more information about Cobbler, see xref:client-configuration:cobbler.adoc

For more information about power management, see [Client-configuration › Power-management › ].

Snapshots

This section shows a list of the snapshots taken for the current client. Click the name of a snapshot to see more details. You can use the subtabs in the Provisioning › Snapshots tab to see the changes that rolling back to the selected snapshot will make to:

- Group memberships
- Channel subscriptions
- Installed packages
- Configuration channel subscriptions
- Configuration files
- Snapshot tags

Click [Rollback to Snapshot] to roll back to the selected snapshot.

For more information about snapshots, see [Client-configuration › Snapshots › ].

Snapshot Tags

This sections shows a list of the snapshot tags for the current client. Click the tag name to see more information about the snapshot. Click [Create System Tag] to apply a new tag to the most recent snapshot.

For more information about snapshots, see [Client-configuration › Snapshots › ].

Groups

The Systems › Groups section shows the system groups the selected client is assigned to.

The Systems › Groups subtab is split into sections:
For more information about system groups, see [Client-configuration › System-groups › ].

**List/Leave**

This section lists all groups that the selected client belongs to.

Click the group name to see more information about the system group. To remove the selected client from a system group, check the group, and click [Leave Selected Groups].

**Join**

This section lists all groups that are available for the selected client to subscribe to.

Click the group name to see more information about the system group. To join a system group, check the group, and click [Join Selected Groups].

**Virtualization**

The Systems › Virtualization section allows you to manage the virtual guests registered to the selected client. This is only available when the selected client is registered as a virtual host.

For more information about virtualization, see [Client-configuration › Virtualization › ].

The Systems › Virtualization tab is split into subtabs:

**Guests**

This section lists the virtual guests registered to the selected client. This is only available when the selected client is registered as a virtual host.

The list shows these columns:

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guest</td>
<td>The name of the virtual guest</td>
</tr>
<tr>
<td>System</td>
<td>The client the virtual guest is registered to</td>
</tr>
<tr>
<td>Updates</td>
<td>Icon indicates if the guest has outstanding patches</td>
</tr>
<tr>
<td>State</td>
<td>Indicates if the guest is running, suspended, stopped, or crashed</td>
</tr>
<tr>
<td>Current Memory</td>
<td>The amount of RAM allocated to the guest</td>
</tr>
<tr>
<td>vCPUs</td>
<td>The number of virtual processors allocated to the guest</td>
</tr>
<tr>
<td>Base Software Channel</td>
<td>The base software channel the guest is registered to</td>
</tr>
<tr>
<td>Action Status</td>
<td>Any currently running action</td>
</tr>
<tr>
<td>Column</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Actions</td>
<td>Use these buttons to start, stop, or change the guest</td>
</tr>
</tbody>
</table>

To perform bulk actions on multiple virtual guests, select the guests, and click the appropriate action button above the table. For Salt clients, click [Create Guest] to configure and create a new virtual guest.

Virtual guests must be registered to virtual hosts. Virtual guests cannot be registered to a virtual guest.

**Storage**

This section lists the virtual storage pools and volumes defined on the selected client. This is only available when the selected client is registered as a Salt virtual host.

The list shows these columns:

**Table 9. Virtual Storage Pools List Columns**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>The name of the virtual storage pool or volume</td>
</tr>
<tr>
<td>State</td>
<td>Indicates if the pool is running, suspended, stopped, or crashed</td>
</tr>
<tr>
<td>Autostart</td>
<td>Checked if the pool starts automatically when the virtual host is booted</td>
</tr>
<tr>
<td>Persistent</td>
<td>Checked if the pool persists between virtual host reboots</td>
</tr>
<tr>
<td>Location</td>
<td>The absolute path to the pool on the virtual host</td>
</tr>
<tr>
<td>Usage</td>
<td>The percentage of storage in use. Displays unknown if the pool is not running.</td>
</tr>
<tr>
<td>Actions</td>
<td>Use these buttons to start, stop, or change the pool</td>
</tr>
</tbody>
</table>

Click [Create Pool] to configure and create a new virtual storage pool.

**Provisioning**

This section allows you to provision a new virtual guest on the selected client. This is only available when the selected client is registered as a traditional virtual host.

Select the autoinstallation profile to use, name the new virtual guest, and schedule a time for the guest to be provisioned. Click [Advanced Configuration] for more configuration options. Click [Schedule Autoinstallation and Finish] to complete provisioning.
Deployment

This section allows you to deploy a new virtual guest on the selected client from a baremetal system. This is only available when the selected client is registered as a traditional virtual host.

Type a URL to the qcow2 image to use, define the hardware requirements, and the proxy if required. Click [Schedule Image Deployment] to complete the deployment.

You can see pending virtual guest deployments by navigating to Schedule › Pending Actions.

Audit

The Systems › Audit section displays the results of OpenSCAP scans that you have performed on the selected client.

The Security Certification and Authorization Package (SCAP) is a standardized compliance checking solution for enterprise-level Linux infrastructures. Uyuni uses OpenSCAP to implement the SCAP specifications.

For more information about OpenSCAP, see [Administration › Openscap ›].

The Systems › Audit subtab is split into sections:

List Scans

This section displays the results of openSCAP scans that have been performed on the selected client.

The table columns on this page are:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xccdf Test Result</td>
<td>The name of the test result</td>
</tr>
<tr>
<td>Diff</td>
<td>FIXME</td>
</tr>
<tr>
<td>Completed</td>
<td>The time that the scan was completed</td>
</tr>
<tr>
<td>Compliance</td>
<td>The unweighted pass/fail ratio</td>
</tr>
<tr>
<td>P</td>
<td>The number of checks that passed</td>
</tr>
<tr>
<td>F</td>
<td>The number of checks that failed</td>
</tr>
<tr>
<td>E</td>
<td>The number of errors that occurred</td>
</tr>
<tr>
<td>U</td>
<td>The number of checks with an unknown status</td>
</tr>
<tr>
<td>N</td>
<td>The number of checks that were not applicable to the selected client</td>
</tr>
<tr>
<td>K</td>
<td>The number of checks not run</td>
</tr>
<tr>
<td>S</td>
<td>The number of checks that were not selected</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>I</td>
<td>The number of checks that have information available for review</td>
</tr>
<tr>
<td>X</td>
<td>The number of checks that reported a status of fixed</td>
</tr>
<tr>
<td>Total</td>
<td>The total number of checks run</td>
</tr>
</tbody>
</table>

Click the name of a scan test result to see details about the result.

**Schedule**

This section allows you to schedule a scan for the selected client.

**States**

The **Systems › States** section allows you to manage Salt states on the selected client. States provide configuration templates for Salt clients. Applying the highstate applies all outstanding Salt states. This is only available for Salt clients.

For more information about Salt states, see [Salt › Salt-states ›].

The **Systems › States** subtab is split into sections:

**Highstate**

This section provides details of the highstate for the selected client. To schedule a time to apply the highstate, select the date and time and click [Apply Highstate]. Toggle the [Test mode] switch to test the highstate before you apply it.

**Recurring States**

This section allows you to schedule the highstate to be applied at a regular recurring time. Give your recurring schedule a name, select a time and day for it to recur, and click [Create Schedule]. Toggle the [Test mode] switch to test the highstate before you apply it.

**Packages**

This section allows you to manage package states for the selected client. Package states determine which packages and versions should be installed on the selected client.

Use the search tool to search for the package you want to change. To set the package state to install the package, select **Installed** as the new state. To always upgrade the package to the latest version, select **latest**. Click [Save] to save the changes to the state. Click [Apply changes] to apply the new package state to the selected client.

Use the **Changes** subtab to see what changes will occur on the selected client when this state is applied.
Configuration Channels

This section allows you to manage configuration channels for the selected client.

Use the search tool to search for the configuration channel you want to manage. This section shows the list of configuration channels that are available for the selected client to subscribe to. To subscribe the selected client to a configuration channel, check the channel, and click [Apply].

Use the Changes subtab to see what changes will occur on the selected client when this state is applied.

For more information about configuration channels, see [Client-configuration › Configuration-management › ].

Formulas

The Systems › Formulas section allows you to manage Salt formulas on the selected client. This is only available for Salt clients.

This section lists all currently installed formulas. Check the formulas you want to apply, and click [Save]. When a formula is applied, it will create a new subtab. Navigate to the subtab to configure the formula on the selected client. After most formula actions, you will need to apply the highstate to pick up the changes.

For more information about formulas, see [Salt › Formulas-intro › ].

Events

The Systems › Events section shows past, current, and scheduled actions for the selected client.

For more information about actions, see [Administration › Actions › ].

The Systems › Event tab is split into subtabs:

Pending

This section shows actions that are scheduled, but have not yet started.

Click the name of an action to see more information. To cancel an action, check the action and click [Cancel Selected Events ].

History

This section shows actions that have been completed on the selected client.

Click the summary of an action to see more information.
The **Systems › System List** section lists all clients available in your Uyuni environment.

For more information about managing clients, see [Client-configuration › Client-config-overview › ].

The **Systems › System List** section is split into submenus:

### All

The **Systems › System List › All** section lists every client that you have permission to manage.

### Physical Systems

The **Systems › System List › Physical Systems** section lists every client that is installed on physical hardware.

### Virtual Systems

The **Systems › System List › Virtual Systems** section lists every client that is installed on virtual hardware. The list includes all your virtual hosts, and the virtual guests that are attached to them.

For virtual guests that are registered to the Uyuni Server, click the name of the guest to manage it. Virtual guests that are not registered are shown, but cannot be managed in the WebUI.

For more information about virtual clients, see [Client-configuration › Virtualization › ].

### Unprovisioned Systems

The **Systems › System List › Unprovisioned Systems** section lists every bare metal client that the Uyuni Server is aware of, but has not yet been registered.

For more information about bare metal clients, see [Client-configuration › Autoinst-intro › ].

### Out of Date

The **Systems › System List › Out of Date** section lists every client that has available updates.

For more information about managing client updates, see [Client-configuration › Package-management › ].

### Requiring Reboot

The **Systems › System List › Requiring Reboot** section lists every client that requires rebooting.

### Non Compliant

The **Systems › System List › Non Compliant** section lists every client that has non-compliant packages
installed. Packages are considered non-compliant if they have been installed from a source other than Uyuni. In the list, the **Packages** column shows the number of non-compliant packages on the client.

**Without System Type**

The **Systems › System List › Without System Type** section lists every client that does not have a base system type recorded.

**Ungrouped**

The **Systems › System List › Ungroups** section lists every client that is not assigned to a system group.

For more information about system groups, see [Client-configuration › System-groups ›](#).

**Inactive**

The **Systems › System List › Inactive** section lists every client that has not checked in with the Uyuni Server in 24 hours or more.

For more information about client connections to the server, see [Client-configuration › Contact-methods-intro ›](#).

For more information on troubleshooting inactive clients, see [Administration › Tshoot-inactiveclients ›](#).

**Recently Registered**

The **Systems › System List › Recently Registered** section lists every client that has registered within a given period. Select the period to view from the **View systems registered** field.

**Proxy**

The **Systems › System List › Proxy** section lists every client that is registered as a proxy.

**Duplicate Systems**

The **Systems › System List › Duplicate Systems** section lists clients that share IP addresses, host names, or MAC addresses. Use the tabs to compare clients.

**System Currency**

The **Systems › System List › System Currency** section lists all clients with information about available updates, and provides a currency score for each. You can use the currency score to determine in which order clients should be updated. A score with a larger number indicates that a client is not current, and might require critical updates.
System Types

The Systems › System List › System Types section lists every client, their base system type, add-on system type, and base channel. It also gives a count of clients of each system type.

System Groups

The Systems › System Groups section displays the list of system groups in your organization.

Click the name of a group to work with it, or to add or delete clients in the group.

The list shows an icon if there are updates available for any of the clients in the group. Click the icon to see more information about the updates available.

Table 11. Update Status Icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
<th>Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td>No applicable updates</td>
<td>All clients in this group are up to date</td>
</tr>
<tr>
<td>⚠</td>
<td>Updates available</td>
<td>One or more clients have updates ready to install</td>
</tr>
<tr>
<td>⚡</td>
<td>Security updates needed</td>
<td>One or more clients have security updates that must be installed</td>
</tr>
</tbody>
</table>

For more information about system groups, see [ Client-configuration › System-groups › ].

System Set Manager

The Systems › System Set Manager section allows you to manage clients that you have added to the system set manager.

For more information about the system set manager, see [ Client-configuration › System-set-manager › ].

System Set Manager Overview

The Systems › System Set Manager › Overview section allows you to manage clients that you have added to the system set manager (SSM). You can also access this page by clicking the systems selected icon in the top menu bar.

For more information about SSM, see [ Client-configuration › System-set-manager › ].

The Systems › Systems Set Manager menu is split into tabs:

Overview

This section provides quick access to all the of the SSM tabs.
Systems

This section lists all clients currently in the SSM. It provides information about the updates available, when the client last checked in, the registered base channel, and system type. Click the client name to see more information.

Patches

This section lists all patches available for upgrade on clients currently in the SSM. Click the number in the Affected column to see which clients a patch applies to. To perform upgrades, check the patches to apply and click [Apply Patches].

For more information about patch management, see [Client-configuration › Patch-management ›].

Packages

This section is split into subtabs.

The Packages › Upgrade subtab lists all packages available for upgrade on clients currently in the SSM. To perform upgrades, check the packages to upgrade and click [Upgrade Selected Packages].

The Packages › Install subtab allows you to install new packages on all clients currently in the SSM. To install packages, click the base channel that contains the package, check the packages to install, and click [Install Selected Packages].

The Packages › Remove subtab allows you to remove packages from all clients currently in the SSM. If clients in the SSM have different versions of a package installed, multiple versions are available in the list. To remove packages, select the packages to remove, and click [Remove Selected Packages].

On traditional clients, the Packages › Verify subtab allows you to verify packages against the package repository. To verify a package, check the package in the list and click [Verify Selected Packages]. When the verification is complete, navigate to Systems › Events › History to see the results.

For more information about package management, see [Client-configuration › Package-management ›].

Groups

This section lists all system groups clients currently available in your organization. Click [Create Group] to create a new system group. For each group in the list, check Add to add all clients in the SSM to the group, check Remove to remove all clients in the SSM from the group, or check No Change to leave group assignments as they are. Click [Alter Membership] to change group assignments.

For more information about system groups, see [Client-configuration › System-groups ›].

Channels

This section lists all base channels clients currently subscribed to by clients currently in the SSM. You can change all clients subscribed to a current base channel to a new base channel, by selecting the new base
channel and following the prompts.

For more information about software channels, see [Client-configuration › Channels ›].

For more information about using the SSM to change base channels, see [Client-configuration › System-set-manager ›].

**Configuration**

This section is split into subtabs.

The **Configuration › Deploy Files** subtab lists all configuration files available for deployment. Click the number in the **Systems** column to see which clients are currently subscribed to the configuration file. To assign a configuration file to the clients currently in the SSM, check the configuration file, and click [Schedule File Deploy].

The **Configuration › Compare Files** subtab lists all configuration files available for comparison. This compares the configuration file deployed on a client with the configuration file stored on the Uyuni Server. Click the number in the **Systems** column to see which clients are currently subscribed to the configuration file. To compare configuration files, check the configuration files to compare, and click [Schedule File Comparison].

The **Configuration › Subscribe to Channels** subtab lists all configuration channels available for subscription. To subscribe the clients in the SSM to a new configuration channel, check the configuration channel, click [Continue], and follow the prompts.

The **Configuration › Unsubscribe from Channels** subtab lists all configuration channels clients in the SSM are currently subscribed to. To unsubscribe the clients in the SSM from a configuration channel, check the configuration channel and click [Unsubscribe Systems].

The **Configuration › Enable Configuration** subtab lists clients in the SSM that are capable of using configuration management, but have not yet been enabled. To enable clients in the SSM to use configuration management, check the client and click [Enable Configuration Management].

For more information about configuration management, see [Client-configuration › Configuration-management ›].

**Provisioning**

This section is split into subtabs.

The **Provisioning › Autoinstallation** subtab lists all clients in the SSM available for autoinstallation, with their base channel. To schedule autoinstallation, select an autoinstallable type, click [Continue] and follow the prompts.

On traditional clients, the **Provisioning › Tag Systems** subtab allows you to add descriptions the most recent snapshots of clients currently in the SSM. To tag the most recent snapshots, enter a description in the **Tag name** field and click [Tag Current Snapshots]. For more information about snapshots, see [ ]
On traditional clients, the **Provisioning › Rollback** subtab allows you to roll clients currently in the SSM back to a previous snapshot. To roll back to a previous snapshot, click the name of the snapshot to roll back to, and click [Rollback Systems]. For more information about snapshots, see [Client-configuration › Snapshots › ].

The **Provisioning › Power Management Configuration** subtab allows you to configure power management for the clients in the SSM. For more information about power management, see [Client-configuration › Power-management › ].

The **Provisioning › Power Operations** subtab allows you to power on, power off, or reboot the clients in the SSM. For more information about power management, see [Client-configuration › Power-management › ].

For more information about autoinstallation, see [Client-configuration › Autoinst-intro › ].

**States**

For Salt clients, the **States › Highstate** subtab allows you to apply the highstate to all clients in the SSM.

**Audit**

For traditional clients, this section allows you to schedule a new XCCDF scan on all clients in the SSM. For more information about auditing, see [Administration › Auditing › ].

**Misc**

This section is split into subtabs.

The **Misc › Preferences** subtab allows you to configure the custom information, system types, and system preferences for the clients in the SSM.

The **Misc › Hardware** subtab allows you to schedule a hardware profile refresh for the clients in the SSM.

The **Misc › Software** subtab allows you to schedule a package profile refresh for the clients in the SSM.

The **Misc › Remote Command** subtab allows you to schedule a remote command to be executed on the clients in the SSM.

The **Misc › Custom Values** subtab allows you to set or remove custom key values for the clients in the SSM.

For traditional clients, the **Misc › Lock/Unlock** subtab allows you to lock or unlock clients in the SSM.

The **Misc › Reboot** subtab allows you to schedule a reboot for the clients in the SSM.

The **Misc › Migrate** subtab allows you to move clients in the SSM to a new organization.
The Misc › Delete subtab allows you to delete the system profiles of clients in the SSM.

**System Set Manager Task Log**

The Systems › System Set Manager › Task Log section shows all actions applied to clients that you have added to the system set manager (SSM). The SSM Task Log lists all actions performed against clients currently in SSM. Click an entry to see more information about the action.

This section is divided into tabs:

The All tab lists all actions that have been performed. The In Progress tab lists all actions that are currently in progress. The Completed tab lists all actions that have been completed.

For more information about SSM, see [Client-configuration › System-set-manager ›].

**Bootstrapping**

The Systems › Bootstrapping section allows you to register a single Salt client.

**Table 12. Bootstrap Options**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>The hostname of the client to be registered</td>
<td>-</td>
</tr>
<tr>
<td>SSH port</td>
<td>The port on the client that allows SSH access</td>
<td>22</td>
</tr>
<tr>
<td>User</td>
<td>The user name to use to log in to the client</td>
<td>root</td>
</tr>
<tr>
<td>Authentication Method</td>
<td>Choose Password for simple authentication, or SSH Private Key to use SSH authentication.</td>
<td>Password</td>
</tr>
<tr>
<td>Password</td>
<td>The password to use to log in to the client</td>
<td>-</td>
</tr>
<tr>
<td>SSH Private Key</td>
<td>Upload the SSH Private Key to use to log in to the client</td>
<td>-</td>
</tr>
<tr>
<td>SSH Private Key Passphrase</td>
<td>The passphrase for the SSH Private Key, or leave blank for no password.</td>
<td>-</td>
</tr>
<tr>
<td>Activation Key</td>
<td>The activation key to use to register the client. Leave blank to use the universal default activation key, or select None for no activation key.</td>
<td>None</td>
</tr>
</tbody>
</table>
Option | Description | Default
--- | --- | ---
Proxy | The proxy to which the client should be registered. Leave blank if you are not using a proxy. | None
Disable SSH strict host key checking | Automatically adds the host key to the known hosts file | Checked
Manage system completely via SSH | Uses only the SSH contact method | Unchecked

SSH private keys are stored only for the duration of the bootstrapping process. They are deleted from the Uyuni Server as soon as bootstrapping is complete.

When you have completed the details of the client you want to register, click [Bootstrap]. When the client has completed registering, navigate to Systems › System List to see details.

For more information about bootstrapping, see [Client-configuration › Registration-webui › ].

Visualization Menu

The Systems › Visualization section displays a visual representation of your clients, virtualized clients, and proxies.

Click an element on any visualization to see more information about the selection. Click [Show filters] to see additional controls and filters.

The Systems › Visualization section is split into submenus:

Virtualization Hierarchy

The Systems › Visualization › Virtualization Hierarchy section displays a graphical representation of your virtualized clients. It shows the virtual hosts registered to the Uyuni Server, with the clients registered to each host.

Proxy Hierarchy

The Systems › Visualization › Proxy Hierarchy section displays a graphical representation of your Uyuni Proxies. It shows the proxies registered to the Uyuni Server, with the clients registered to each proxy.

Systems Grouping

The Systems › Visualization › Systems Grouping section displays a graphical representation of all clients registered to the Uyuni Server.

By default, clients are shown arranged by systems groups. Click [Show filters] to change how they are
arranged.

**Advanced Search**

The Systems › Advanced Search section allows you to perform global searches within your Uyuni environment. Searches can include network information, hardware devices, location, activity, packages, details, DMI information, and hardware.

Type your search term in the Search For field. Select the criterion to search by, use the radio buttons to specify whether you want to query all systems or only those in the System Set Manager, and click the [Search] button. Check Invert Result to list only results that do not match the specified criteria.

When you add a distribution, synchronize channels, or register a client, it can take several minutes for it to be indexed and appear in search results. To force a rebuild of the search index, use this command at the command prompt:

```
rhn-search cleanindex
```

**Activation Keys**

The Systems › Activation Keys section lists the current activation keys for your organization.

The universal default activation key, if set, is automatically used for all clients registered to your organization, unless you specify a different activation key.

The list of activation keys shows the name and description for each key, and how many times the key has been used. It also shows if the key is currently enabled for your organization. Click the key description to see more information about the activation key.

Click [Update Activation Keys] to refresh the list with recent changes.

Click [Create Key] to create a new activation key.

For more information about activation keys, see [Client-configuration › Activation-keys ›].

**Stored Profiles**

The Systems › Stored Profiles section lists the stored profiles for your organization. Profiles can be used to compare packages installed on clients.

Click the name of a profile to see more information about the packages in the profile, or to edit the name or description.

For more information about using profiles to compare packages, see [Client-configuration › Package-management ›].
Custom System Information

The Systems › Custom System Info section lists the custom system information available to clients in your organization.

Click [Create Key] to create a new custom system key. Click the key label to see more information, and to edit the value.

For more information about custom system information, see [Client-configuration › Custom-info › ].

Autoinstallation Menu

The Systems › Autoinstallation section allows you to manage clients for autoinstallation.

For more information about autoinstallation, see [Client-configuration › Autoinst-intro › ].

Autoinstallation Overview

The Systems › Autoinstallation › Overview section displays an overview of your autoinstallation settings, including clients that are autoinstalling, or scheduled to be autoinstalled.

The Systems › Details › Overview subtab is split into sections:

Autoinstallation Summary

This section lists the AutoYaST and Kickstart profiles currently available, and the number of clients installed with each profile.

Autoinstallation Actions

This section provides links to actions related to autoinstallation. You can also access these using the Systems › Autoinstallation menu.

Systems Currently Autoinstalling

This section lists all clients that are currently autoinstalling, along with their status.

Systems Scheduled to be Autoinstalled

This section lists all clients that are scheduled for autoinstallation, along with their status.

Click [Create Kickstart Profile] to create a new Kickstart profile. Click [Upload Kickstart/Autoyast File] to upload a new autoinstallation file.

For more information about autoinstallation, see [Client-configuration › Autoinst-intro › ].

Autoinstallation Profiles

The Systems › Autoinstallation › Profiles section lists all profiles currently available. The list includes information about if the profile is active, the distribution it is based on, and if it being managed with Uyuni.
Click the name of a profile to see more information.

Click [Create Kickstart Profile] to create a new Kickstart profile. Click [Upload Kickstart/Autoyast File] to upload a new autoinstallation file.

For more information about autoinstallation profiles, see [Client-configuration › Autoinst-profiles › ].

Unprovisioned

The Systems › Autoinstallation › Unprovisioned section lists the IP ranges currently associated with bare metal autoinstallation. When a bare metal client is assigned an IP within this range, it will be autoinstalled.

Click the IP range or profile name to see more information.

For more information about bare metal provisioning, see [Client-configuration › Autoinst-provisioning › ].

GPG and SSL Keys

The Systems › Autoinstallation › GPG and SSL Keys section lists all GPG public keys and SSL certificates currently available. Click the name of a key to see more information.

Click [Create Stored Key/Cert] to store a new GPG key or SSL certificate.

For more information about GPG keys and SSL certificates, see [Client-configuration › Gpg-keys › ].

Distributions

The Systems › Autoinstallation › Distributions section lists the available autoinstallable distributions.

Click the distribution name to see more information. Click [Create Distribution] to create a new autoinstallable distribution.

For more information about autoinstallable distributions, see [Client-configuration › Autoinst-setup › ].

File Preservation

The Systems › Autoinstallation › File Preservation section allows you to store lists of files, to use them in Kickstart profiles later on.

Click [Create File Preservation List] to create a new list.

For more information about Kickstart file preservation, see [Client-configuration › Autoinst-profiles › ].
Autoinstallation Snippets

The Systems › Autoinstallation › Autoinstallation Snippets section allows you to store code snippets, to use them in autoinstallation profiles later on.

Click [Create Snippet] to create a new code snippet.

For more information about autoinstallation code snippets, see [Client-configuration › Autoinst-setup › ].

Virtual Host Managers

The Systems › Virtual Host Managers section lists the active virtual host managers (VHMs).

VHMs can be used to collect private or public cloud instances and organize them into virtualization groups.

For more information about VHMs, see [Client-configuration › Vhm › ].

Clusters Menu

In the Clusters section, you can add and manage your SUSE CaaS Platform clusters. For more information about clusters, see [Client-configuration › Virt-clusters › ].

Clusters Overview

The Clusters › Overview section displays a list of all current clusters in your organization. Each cluster in the list shows the name and type of cluster, and the name of the management node. Click the cluster name to see more information about the cluster.

For more information about clusters, see [Client-configuration › Virt-clusters › ].

Cluster Details

The Clusters › Details section displays detailed information about the selected cluster.

The Cluster Properties section contains information about the cluster. This includes the label, name, description, cluster provider, and system group.

The list shows all nodes currently registered to the cluster, and displays system information about each node. Click the name of the node to see more information.

Navigate to the Provider Settings tab to update settings related to the cluster provider. These values will change depending on your provider. For SUSE CaaS Platform clusters, you can change the path to the skuba directory, and adjust SSH settings.

For more information about clusters, see [Client-configuration › Virt-clusters › ].
Add Cluster

The Clusters › Add section allows you to add new clusters to your Uyuni Server. Select from the available cluster providers, and click [Next] to begin the installation.

For more information about clusters, see [Client-configuration › Virt-clusters › ].

Salt Menu

The Salt section displays details of your Salt clients. You can use this menu to perform remote commands or define a state catalog for your Salt clients.

For more information about using Salt with Uyuni, see [Salt › Salt-overview › ].

Keys

The Salt › Keys section displays the key fingerprints of your current Salt clients.

Key fingerprints are exchanged between the Uyuni Server and Salt clients to verify the identity of the server and the client. This prevents Salt clients from connecting to the wrong server.

Click [Refresh] to update the list. Click the name of a client to go to Systems › Details for that client.

Table 13. Salt Keys List Columns

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name of the Salt client.</td>
</tr>
<tr>
<td>Fingerprint</td>
<td>Key fingerprint of the Salt client.</td>
</tr>
<tr>
<td>State</td>
<td>The status of the key exchange: accepted indicates that the client key has been verified by the Uyuni Server.</td>
</tr>
<tr>
<td>Actions</td>
<td>Click the Delete icon to delete the client key from the server. Clients that have had their key deleted will need to be onboarded again.</td>
</tr>
</tbody>
</table>

Remote Commands

The Salt › Remote Commands section allows you to perform remote commands on one or more of your Salt clients. Remote commands allows you to issue commands to individual Salt clients, or to all clients that match a search term.

For more information about remote commands, see [Administration › Actions › ].
Formula Catalog

The Salt › Formula Catalog section allows you to see which formulas are currently installed on your Uyuni Server, and are available to be used on your Salt clients. Install and configure formulas by navigating to Systems › Details for the client you want to configure, and navigate to the guimenu formulas tab.

For more information about Uyuni formulas, see [Salt › Formulas-intro ›].

Images Menu

The Images › Image List section displays your current operating system images.

For more information about images, see [Administration › Image-management ›].

Image List

The Images › Image List section displays your current operating system images.

Click [Import] to import a new Docker image. You can only import new images created from a Docker image using this mechanism. To import images based on Kiwi instead, see [Administration › Image-management ›].

Click [Refresh] to update the list.

Perform bulk actions by checking images in the list. Click [Delete] to bulk delete images.

Table 14. Image List Columns

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name of the image.</td>
</tr>
<tr>
<td>Version and Revision</td>
<td>Version and revision of the image.</td>
</tr>
<tr>
<td>Updates</td>
<td>Any updates that are currently available for the image.</td>
</tr>
<tr>
<td>Patches and Packages</td>
<td>Any patches or packages that are currently available for the image.</td>
</tr>
<tr>
<td>Build</td>
<td>The current status of the build: Built, Scheduled, Building or Failed.</td>
</tr>
<tr>
<td>Last Modified</td>
<td>The time and date the image was last modified.</td>
</tr>
</tbody>
</table>

For more information about images, see [Administration › Image-management ›].
Images Build

The **Images › Build** section allows you to build operating system images for installing on clients.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image Profile</td>
<td>Select the image profile to use. Manage image profiles at <strong>Images › Profiles</strong>.</td>
<td>Blank.</td>
</tr>
<tr>
<td>Build Host</td>
<td>Select the build host for the new image.</td>
<td>Blank.</td>
</tr>
<tr>
<td>Earliest</td>
<td>Schedule the time and date for the build to begin.</td>
<td>Current system time and date.</td>
</tr>
<tr>
<td>Add to</td>
<td>Select which action chain to add the build task to.</td>
<td>New action chain.</td>
</tr>
</tbody>
</table>

Built images are listed in **Images › Image List**.

For more information about images, see [Administration › Image-management › ].

Images Profiles

The **Images › Profiles** section displays your current image profiles.

Click [Create] to create a new image profile. Click [Refresh] to update the list.

Perform bulk actions by checking profiles in the list. Click [Delete] to bulk delete profiles.

For more information about images, see [Administration › Image-management › ].

Images Stores

The **Images › Stores** section displays your current image stores.

Click [Create] to create a new image store. Click [Refresh] to update the list.

Perform bulk actions by checking images in the list. Click [Delete] to bulk delete image stores.

For more information about images, see [Administration › Image-management › ].

Patches Menu

The **Patches** menu helps you find and manage available patches for your clients.

For more information about patching, see [Client-configuration › Patch-management › ].
Patch Details

The *Patches › Patch List › Patch Details* section displays the details of a selected patch. Click the advisory number of a patch in the *Patch List* to see more information about the patch.

This section is divided into tabs.

Details

The *Details* tab shows the patch report provided by SUSE.

In the *Affected Channels* section, all channels that contain the affected package are listed. Click the channel name to go to *Software › Channel Details*.

For security patches, additional information is shown about the vulnerability, including the CVE and OVAL details.

For more information about SUSE Update Advisories, see [https://www.suse.com/support/update/](https://www.suse.com/support/update/).

Packages

The *Packages* tab provides links to each of the updated packages by channel. Click the name of a package to go to *Software › Channel Details*.

Affected Systems

The *Affected Systems* tab provides a list of installed clients that the patch affects. You can install updates from this tab.

Click the name of a client to go to *Systems › System Details*.

Each client in the list shows the current status of the patch on that client. This column identifies only the most recent action. Click the name of a status in the list to go to the *Action Details* page.

*Table 16. Client Update Status Icons*

<table>
<thead>
<tr>
<th>Description</th>
<th>Action Required</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check the status manually.</td>
<td>Pending</td>
<td>The client will be updated at the next synchronization.</td>
</tr>
<tr>
<td>Picked Up</td>
<td>The client is in the progress of updating.</td>
<td>Completed</td>
</tr>
<tr>
<td>The client successfully installed the patch</td>
<td>Failed</td>
<td>The client attempted to install the patch, but encountered an error.</td>
</tr>
</tbody>
</table>
Patch List

Relevant Patches

The Patches › Patch List › Relevant section displays a list of all patches released by SUSE that apply to your installed clients.

Each patch in the list shows a patch type, an advisory number, a short description, the number of clients in your network affected, and the date the patch was last updated. Click the advisory number to see more information about the patch. For more information about the Patches › Patch List › Patch Details section, see xref:reference:patches/patch-details.adoc

Table 17. Patch Status Icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
<th>Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="" alt="bug" /></td>
<td>Bug fix</td>
<td>Recommended</td>
</tr>
<tr>
<td><img src="" alt="product" /></td>
<td>Product enhancement advisory</td>
<td>Optional</td>
</tr>
<tr>
<td><img src="" alt="security" /></td>
<td>Security update</td>
<td>Essential</td>
</tr>
<tr>
<td><img src="" alt="package" /></td>
<td>Affects package management stack</td>
<td>Recommended</td>
</tr>
</tbody>
</table>

To receive email when new patches are available, navigate to Home › My Preferences and check Receive email notifications.

All Patches

The Patches › Patch List › All section displays a list of all patches released by SUSE. Not all of the patches will apply to your clients.

Each patch in the list shows a patch type, an advisory number, a short description, the number of clients in your network affected, and the date the patch was last updated. Click the advisory number to see more information about the patch.

Table 18. Patch Status Icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
<th>Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="" alt="bug" /></td>
<td>Bug fix</td>
<td>Recommended</td>
</tr>
<tr>
<td><img src="" alt="product" /></td>
<td>Product enhancement advisory</td>
<td>Optional</td>
</tr>
<tr>
<td><img src="" alt="security" /></td>
<td>Security update</td>
<td>Essential</td>
</tr>
<tr>
<td><img src="" alt="package" /></td>
<td>Affects package management stack</td>
<td>Recommended</td>
</tr>
</tbody>
</table>

For more information about patching, see [ Client-configuration › Patch-management › ].
Advanced Search for Patches

The Patches › Advanced Search section allows you to use advanced criteria to search for patches.

You can search for patches by looking for your search term in different fields:

Table 19. Patch Advanced Search Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Fields</td>
<td>Search in all fields</td>
<td>glibc</td>
</tr>
<tr>
<td>Patch Advisory</td>
<td>Search within the name or label</td>
<td>slessp1-glibc</td>
</tr>
<tr>
<td></td>
<td>fields</td>
<td></td>
</tr>
<tr>
<td>Package Name</td>
<td>Search within the package name</td>
<td>kernel</td>
</tr>
<tr>
<td></td>
<td>field only</td>
<td></td>
</tr>
<tr>
<td>CVE</td>
<td>Search within the CVE name or</td>
<td>CVE-2006-4535</td>
</tr>
<tr>
<td></td>
<td>number field only</td>
<td></td>
</tr>
</tbody>
</table>

You can also search within different types of patches, or within a range of issue dates.

For more information about patching, see [Client-configuration › Patch-management › ].

Manage Patches

The Patches › Manage Patches section shows you all custom patches.

Each patch in the list shows a patch type, an advisory name, a short description, and the date the patch was last updated. Click the advisory name to go to Patches › Patch List › Patch Details for the patch.

To create a new patch, click [Create Patch ]. To delete a patch, select it in the list, and click [Delete Patches ].

If you use Uyuni with a proxy, manage patches only on the Uyuni Server. The Uyuni Proxy will receive updates from the server directly. If you manage patches on a proxy, the servers will be unable to synchronize correctly.

For more information about patching, see [Client-configuration › Patch-management › ].

Clone Patches

The Patches › Clone Patches section allows you to create copies of existing patches to distribute to your clients.

To clone a patch, the patch must apply to one of your existing software channels. If the patch was part of a software channel that was cloned, then you can clone the patch from the cloned channel.

See all patches that are available for cloning by selecting the channel name in the View patches.
potentially applicable to: field, and click [View]. From the list, check the patch to clone, and click [Clone Patch]. You need to confirm the details to perform the clone.

Software Menu

The Software section allows you to view and manage software channels, repositories, and packages.

For more information about software channels, see [Client-configuration › Channels ›].

Channel Details

The Software › Channel List › Channel Details section displays the details of a selected channel. Click the advisory number of a channel in the Channel List to see more information about the channel.

This section is divided into tabs.

Details

The Details tab shows the basic channel details, including a description of the channel, and the dates it was last modified and built. This tab also provides contact information for the maintainer of the product and the GPG key details, where available.

Managers

The Managers tab shows which users are authorized to manage the selected channel. The list shows the username, real name, and email address of the channel manager, as well as the current status of the user.

Organization and Channel administrators can manage any channel. Uyuni Administrators can change roles for specific users by clicking the username.

For more information about user management, see [Administration › Users ›].

Patches

The Patches tab shows all available patches for packages in the selected channel. The list displays the advisory type, names, synopsis, and the date the patch was last updated. Click the advisory name to go to the Patch Details page.

For more information about managing patches and packages, see [Client-configuration › Patch-management ›].

Packages

The Packages tab shows all packages in the selected channel. The list shows the package name, summary, and the provider of the package. Click the package name to go to the Package Details page.
For more information about managing patches and packages, see [Client-configuration › Patch-management ›].

Subscribed Systems

The Subscribed Systems tab shows the clients currently subscribed to the selected channel. The list shows the client name and type. Check a client in the list to add it to the system set manager. Click the client name to go to the System Details page.

For more information about the system set manager, see [Client-configuration › System-set-manager ›].

Target Systems

The Target Systems tab shows the clients eligible for subscription to the selected channel. This tab is only available if the selected channel is a child channel. The list shows the client name and type, and the associated base channel.

To subscribe a client to the selected channel, check the client in the list, and click [Confirm].

For more information about software channels, see [Client-configuration › Channels ›].

Channel List Menu

The Software › Channel List section allows you to view and manage software channels and packages on your clients.

For more information about software channels, see [Client-configuration › Channels ›].

The Software › Channel List › All section displays a list of all software channels that are available to your organization.

Each software channel in the list shows a channel name, a provider, the number of packages and patches in the channel, and the number of clients currently subscribed to the channel. Click the plus sign next to the name of a parent channel to expand the entry and see all the related child channels. Click the channel name to see more information about the channel.

Within the Software › Channel List section you can select which subset of channels you would like to see by navigating to tabs, or the sub-menu items.

Table 20. Channel List Filters

<table>
<thead>
<tr>
<th>Filter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>All channels available to your organization.</td>
</tr>
<tr>
<td>SUSE</td>
<td>Channels provided by SUSE.</td>
</tr>
<tr>
<td>Popular</td>
<td>Channels most subscribed to by clients in your organization.</td>
</tr>
</tbody>
</table>
### Filter

<table>
<thead>
<tr>
<th>Filter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Channels</td>
<td>Software channels that belong to your organization, including custom channels.</td>
</tr>
<tr>
<td>Shared</td>
<td>Channels shared with others in the organizational trust.</td>
</tr>
<tr>
<td>Retired</td>
<td>Channels that have reached end-of-life and no longer receive updates.</td>
</tr>
</tbody>
</table>

For more information about software channels, see [Client-configuration › Channels ›](#).

## Package Search

The Software › Package Search section allows you to search all packages.

Enter your search term in the Search For field.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free form</td>
<td>Performs a general search. Use keywords with this option to perform more specific searches.</td>
</tr>
<tr>
<td>Name only</td>
<td>Searches only in the names of packages.</td>
</tr>
<tr>
<td>Name and Summary</td>
<td>Searches within the name and one-line summary of packages.</td>
</tr>
<tr>
<td>Name and Description</td>
<td>Searches within names and long descriptions of packages.</td>
</tr>
</tbody>
</table>

Check the Channels relevant to your systems option to search only channels available for your existing clients. Check the Specific channel you have access to option to search within a specific channel. Check the Packages of a specific architecture to search only for a particular hardware architecture.

You can perform more specific searches by using keywords in the Search For field and selecting the Free Form option.

<table>
<thead>
<tr>
<th>Keyword</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Search package names</td>
<td>name:SUSE</td>
</tr>
<tr>
<td>version</td>
<td>Search for a package version</td>
<td>version:15</td>
</tr>
<tr>
<td>filename</td>
<td>Search within package file names</td>
<td>filename:sles</td>
</tr>
<tr>
<td>Keyword</td>
<td>Description</td>
<td>Example</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>description</td>
<td>Search within the long description</td>
<td>description:java</td>
</tr>
<tr>
<td>summary</td>
<td>Search within the one-line summary</td>
<td>summary:java</td>
</tr>
<tr>
<td>arch</td>
<td>Search for a package architecture</td>
<td>arch:x86_64</td>
</tr>
</tbody>
</table>

For example, if you want to search all SUSE Linux Enterprise packages that include `java` in the description and the summary, use this search:

```
summary:java and description:java
```

For more information about software channels, see [Client-configuration › Channels ›](#).

**Manage Menu**

The **Software › Manage** section allows you to manage custom channels, packages, and repositories.

For more information about custom channels, see [Administration › Custom-channels ›](#).

**Manage Channels**

The **Software › Manage › Channels** section allows you to manage custom channels.

Click [Create Channel] to create a new custom channel.

To clone an existing channel, click [Clone Channel] and select the channel to clone. You can choose to clone channel with or without all current patches, or select specific patches for inclusion.

For more information about custom channels, see [Administration › Custom-channels ›](#).

**Manage Packages**

The **Software › Manage › Packages** section allows you to manage packages that are owned by your organization.

Select a channel from the drop-down box to see all packages related to that channel. If you have administration privileges within your organization, you can also delete packages.

For more information about custom channels, see [Administration › Custom-channels ›](#).

**Manage Repositories**

The **Software › Manage › Repositories** section allows you to manage custom or third-party package repositories and link the repositories to an existing channel.
Click [Create Repository] to create a new repository.

For more information about custom repositories and channels, see [Administration › Custom-channels › ].

**Distribution Channel Mapping**

The **Software › Distribution Channel Mapping** section lists your defined default base channels. When you register a client for the first time, they will automatically be assigned to these software channels, in accordance with their architecture and operating system. Default channel mappings can be edited, but not deleted.

Click [Create Distribution Channel Mapping] to create a new channel map.

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>The client operating system this mapping applies to.</td>
</tr>
<tr>
<td>Release</td>
<td>The operating system release this mapping applies to.</td>
</tr>
<tr>
<td>Architecture</td>
<td>The client system architecture architecture this mapping applies to.</td>
</tr>
<tr>
<td>Channel Label</td>
<td>The label of the channel.</td>
</tr>
<tr>
<td>Organization Specific</td>
<td>Checked if this mapping applies only to the current organization.</td>
</tr>
</tbody>
</table>

For more information about software channels, see [Client-configuration › Channels › ].

**Content Lifecycle Management Menu**

In the **Content lifecycle** section, you can customize and test packages before updating production clients.

Content lifecycle management allows you to select software channels as sources, adjust them as required for your environment, and thoroughly test them before installing onto your production clients.

For more information about content lifecycle management, see [Administration › Content-lifecycle › ].

**Projects**

In the **Content Lifecycle › Projects** section, you can create new content lifecycle management projects, and edit existing projects.

For more information about content lifecycle management, see [Administration › Content-lifecycle › ].
Filters

In the Content Lifecycle › Filters section, you can create various types of filters. With the filters you control the content that is used when a content lifecycle project is built.

For more information about content lifecycle management, see [Administration › Content-lifecycle › ].

Audit Menu

The Audit menu provides access to features for managing security updates on your clients. Audit tasks include finding and updating clients with the latest CVE patches, subscription matching, and managing OpenSCAP scans.

CVE Audit

The Audit › CVE Audit section shows you which CVEs have been applied to your clients. A CVE (common vulnerabilities and exposures) is a fix for a publicly known security vulnerability. It is important that you apply CVEs to your clients as soon as they become available.

Each CVE contains an identification number, a description of the vulnerability, and links to further information. CVE identification numbers use the form CVE-YEAR-XXXX.

Clients are listed with a patch status icon.

Table 24. Patch Status Icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
<th>Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>🚫</td>
<td>Affected, patches are available in channels that are not assigned</td>
<td>The client is affected by a vulnerability and Uyuni has patches for it, but the channels offering the patches are not assigned to the client.</td>
</tr>
<tr>
<td>⚠️</td>
<td>Affected, at least one patch is available in an assigned channel</td>
<td>The client is affected by the vulnerability and Uyuni has patches available in a channel that is directly assigned to the client.</td>
</tr>
<tr>
<td>🔒</td>
<td>Not affected</td>
<td>There are no available CVE patches for this client.</td>
</tr>
<tr>
<td>✅</td>
<td>Patched</td>
<td>A patch has been successfully installed on the client.</td>
</tr>
</tbody>
</table>

For more information about CVE auditing, see [Administration › Auditing › ].
Subscription Matching

The **Audit › Subscription Matching** section provides reports that match your currently installed clients to your existing product subscriptions. Subscription matching reports provide information about clients that do not have a subscription, and subscription start and end dates.

Table 25. Subscription Matching Options

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
<td>Identifier of the matched product</td>
</tr>
<tr>
<td>Description</td>
<td>Description of the matched product</td>
</tr>
<tr>
<td>Policy</td>
<td>The type of subscription matched to the product</td>
</tr>
<tr>
<td>Matched/Total</td>
<td>The number of clients currently using the subscription, of the total available. If the subscription is fully matched, the quantity column value is highlighted.</td>
</tr>
<tr>
<td>Start Date</td>
<td>Start date of the subscription</td>
</tr>
<tr>
<td>End Date</td>
<td>End date of the subscription</td>
</tr>
</tbody>
</table>

Table entries are highlighted if they are due to expire within three months. Table entries that have already expired are shown in grayscale.

For messages relating to subscription matching, navigate to the **Messages** tab.

Table 26. Subscription Matching Statuses

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsupported Part Number</td>
<td>The detected part number is unknown or unsupported.</td>
<td>Call SUSE support and open a Service Request ticket to have the part number added to the product.</td>
</tr>
<tr>
<td>Physical Guest</td>
<td>A client is reporting as virtual, but could be a physical client.</td>
<td>Check the client hardware data.</td>
</tr>
<tr>
<td>Guest with Unknown Host</td>
<td>A virtual client has an unknown host.</td>
<td>Check the virtual host manager (VHM) configuration to ensure it is reporting correctly. For Linux-based hosts using <code>libvirt</code>, check that the host is registered, and that the virtual host system type is set correctly.</td>
</tr>
<tr>
<td>Unknown CPU Count</td>
<td>Unable to determine how many CPUs a client has. Uyuni will default to 16 CPUs.</td>
<td>Schedule a hardware refresh on this client.</td>
</tr>
</tbody>
</table>

To pin clients to a particular subscription, navigate to the **Pins** tab.
### Table 27. Pin Statuses

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied</td>
<td>The client and subscription were matched correctly.</td>
</tr>
<tr>
<td>Not satisfied</td>
<td>The client was not successfully matched with a subscription.</td>
</tr>
<tr>
<td>Pending next run</td>
<td>Waiting for the next matcher run.</td>
</tr>
</tbody>
</table>

For more information about subscription matching, see [Administration › Subscription-matching ›](#).

### OpenSCAP Menu

The Audit › OpenSCAP section displays the results of OpenSCAP scans that you have performed on your clients.

The Security Certification and Authorization Package (SCAP) is a standardized compliance checking solution for enterprise-level Linux infrastructures. Uyuni uses OpenSCAP to implement the SCAP specifications.

For more information about OpenSCAP, see [Administration › Openscap ›](#).

### OpenSCAP

The Audit › OpenSCAP section displays the results of OpenSCAP scans that you have performed on your clients.

The Security Certification and Authorization Package (SCAP) is a standardized compliance checking solution for enterprise-level Linux infrastructures. Uyuni uses OpenSCAP to implement the SCAP specifications.

For more information about OpenSCAP, see [Administration › Openscap ›](#).

### All Scans

The Audit › OpenSCAP section displays the results of OpenSCAP scans that you have performed on your clients.

The Security Certification and Authorization Package (SCAP) is a standardized compliance checking solution for enterprise-level Linux infrastructures.

### Table 28. OpenSCAP Scan Details

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Evaluation Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>The name of the scanned client.</td>
<td></td>
</tr>
<tr>
<td>XCCDF Profile</td>
<td>The evaluated profile.</td>
<td></td>
</tr>
</tbody>
</table>
### Name | Description | Evaluation Results
--- | --- | ---
Completed | The time that the scan was completed. |  
Satisfied | The total number of rules that have been satisfied. | A rule is satisfied if the result of the evaluation is **Pass** or **Fixed**.
Dissatisfied | The total number of rules that are not satisfied. | A rule is dissatisfied if the result of the evaluation is **Fail**.
Unknown | The total number of rules that were not able to be evaluated. | A rule is unknown if the result of the evaluation is **Error**, **Unknown** or **Not checked**.

Rules can also return other results, including **Informational**, **Not Applicable**, or **Not Selected**. Rules that return these results are not shown in the scan results.

For more information about OpenSCAP, see [Administration › Openscap ›](#).

### XCCDF Diff

The **Audit › OpenSCAP › XCCDF Diff** section allows you to compare two OpenSCAP XCCDF scans.

For more information about OpenSCAP, see [Administration › Openscap ›](#).

### Advanced Search

The **Audit › OpenSCAP › Advanced Search** section allows you to search through OpenSCAP scans and results.

For more information about OpenSCAP, see [Administration › Openscap ›](#).

### Configuration Menu

The **Configuration** section provides access to features for managing the configuration of Uyuni clients.

The **Configuration** menu is only available if you are signed in with a configuration administrator or Uyuni administrator account.

Within the configuration pages, you can manage clients using configuration files, and configure channels offering configuration files, and configuration files themselves. Centrally-managed files are available to multiple clients, while locally-managed files are available to individual clients only.
Configuration Management is available for both traditional and Salt clients. Some traditional features are not suitable for Salt clients, and thus not available for Salt clients and excluded from the WebUI.

**Configuration Overview**

The **Configuration › Overview** section is a dashboard that contains a summary of the configuration files that are managed by your organization in Uyuni. There are different panes listing files that are managed centrally in configuration channels and files that are managed locally with individual system profiles.

For more information about managing configuration files, see [Client-configuration › Configuration-management › ].

**Configuration Summary**

Provides quick information about your configuration files. Click the blue text to the right to display:

- Systems with managed configuration files
- Configuration channels
- Centrally-managed configuration files
- Locally-managed configuration files

**Configuration Actions**

**Configuration Actions** offers direct access to the most common configuration management tasks:

- View clients with managed configuration files
- View all managed configuration files
- View all managed configuration channels
- Create a new configuration channel
- Enable configuration management on clients

**Recently Modified Configuration Files**

The list shows which files have changed when and to which channel they belong. If no files have been changed, no list appears.

<table>
<thead>
<tr>
<th>Table 29. Recently Modified Configuration Files Columns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Column</strong></td>
</tr>
<tr>
<td>Filename</td>
</tr>
<tr>
<td>Configuration Channel</td>
</tr>
<tr>
<td>Modified</td>
</tr>
</tbody>
</table>
Recently Scheduled Configuration File Deployments

Each scheduled action is listed along with the status of the action. Any scheduled configuration task, from enabling configuration management on a system to deploying a specific configuration file, is displayed. Here you can quickly assess if all tasks have been successfully carried out or fix any problems.

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>Host name of the system where you want to deploy the configuration file.</td>
</tr>
<tr>
<td>Files to be Deployed</td>
<td>Number of files to be deployed.</td>
</tr>
<tr>
<td>Scheduled By</td>
<td>The user who scheduled the job.</td>
</tr>
<tr>
<td>Scheduled For</td>
<td>The time and date the file deployment will happen.</td>
</tr>
<tr>
<td>Status</td>
<td>Status of the deployment: <strong>Queued</strong></td>
</tr>
</tbody>
</table>

Clicking the blue status text displays the **System Details › Schedule** page for the specified system.

Channels

Uyuni manages both central and local configuration channels and files. Central configuration management allows you to deploy configuration files to multiple systems, and is available for both traditional and salt clients. For traditional clients, use local configuration management. For salt clients, use state channels. For traditional clients, local configuration management is also available. Local configuration management allows you to specify overrides, and select configuration files that are not changed when the system is subscribed to a central channel.

A state channel is a type of a configuration channel used only for Salt clients. In state channels, the **init.sls** file is not automatically generated, you must manually create and edit it. State channels can contain arbitrary configuration files that you can reference from within the **init.sls** file.

You must reference configuration files with the **salt://** prefix, the organization ID, and the channel name. For example, to reference `/etc/motd` use:

```
file.managed:
  - source: salt://manager_org_1/<channel_name>/etc/motd
```

Central configuration or state channels must be created via the links on this page.
Click the name of the configuration channel to see the details page for that channel. If you click the number of files in the channel, you are taken to the List/Remove Files page of that channel. If you click the number of systems subscribed to the configuration channel, you are taken to the Configuration Channel Details › Systems › Subscribed Systems page for that channel.

Configuration Channel Details

Overview

The Overview page of the Configuration Channel Details page is divided into several panels:

Channel Properties [Management]

Edit the name, label, and description of the channel by clicking [Edit Properties].

Channel Information

Provides status information for the contents of the channel.

Configuration Actions

Provides access to the most common configuration tasks. For Salt clients, there is a link to edit the init.sls file.

This panel allows you to deploy, compare, and add and create files. Some action are only available if you have files created and clients assigned to configuration channels.

List/Remove Files

This page only appears if there are files in the configuration channel. You can remove files or copy the latest versions into a set of local overrides or into other central configuration channels. Check the box next to files you want to manipulate, then click the action button at the bottom.

Add Files

The Add Files page has three subtabs of its own, which allow you to Upload, Import, or Create configuration files to be included in the channel.

Upload File

To upload a file into the configuration channel, browse for the file on your local system, populate all fields, and click the [Upload Configuration File] button. The Filename/Path field is the absolute path where the file will be deployed.

You can set the Ownership via the user name and group name and the Permissions of the file when it is deployed.

If the client has SELinux enabled, you can configure SELinux contexts to enable the required file attributes (such as user, role, and file type).

If the configuration file includes a macro (a variable in a configuration file), enter the symbol that marks the beginning and end of the macro. For more information on using macros, see
Import Files
To import files from other configuration channels, including any locally-managed channels, check the box to the left of any file you want to import. Then click [Import Configuration File(s)].

A sandbox icon ([Spacewalk Icon Sandbox]) indicates that the listed file is currently located in a local sandbox. Files in a system's sandbox are considered experimental and could be unstable. Use caution when selecting them for a central configuration channel.

Create File
Create a configuration file, directory, or symbolic link to be included in the configuration channel.

Deploy Files
This page only appears when there are files in the channel and a system is subscribed to the channel. Deploy all files by clicking the [Deploy All Files] button or check selected files and click the [Deploy Selected Files] button. Select to which systems the file(s) should be applied. All systems subscribed to this channel are listed. If you want to apply the file to a different system, subscribe it to the channel first. To deploy the files, click [Confirm & Deploy to Selected Systems].

Systems
Manage systems subscribed to the configuration channel with two subtabs:

Subscribed Systems
All systems subscribed to the current channel are displayed. Click the name of a system to see the System Details page. To unsubscribe a system from the configuration channel, check the box to the left of the system name and click [Unsubscribe systems].

Target Systems
This subtab displays a list of systems enabled for configuration management but not yet subscribed to the channel. To add a system to the configuration channel, check the box to the left of the system name and click [Subscribe systems].

Files
This page allows you to manage your configuration files independently. Both centrally-managed and locally-managed files can be reached from sub-pages.

By default, the maximum file size for configuration files is 128 KB (131072 bytes). SUSE supports a configuration file size up to 1 MB. Larger files are not guaranteed to work.

The default maximum file size is set on the Uyuni Server in these files:
Copy these variables to `/etc/rhn/rhn.conf` and edit them. Values are specified in bytes, for example:

```bash
# /etc/rhn/rhn.conf
web.maximum_config_file_size = 262144
server.maximum_config_file_size = 262144
```

Then restart `spacewalk`:

```
spacewalk-service restart
```

**Centrally Managed Configuration Files**

Centrally-managed files are available to multiple systems. Changing a file within a centrally-managed channel may result in changes to several systems. Locally-managed files supersede centrally-managed files. For more information about locally-managed files, see [Reference › Configuration › Locally Managed Configuration Files](#).

This page lists all files currently stored in your central configuration channel.

**Table 31. Centrally Managed Files Columns**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path</td>
<td>Absolute filename of the configuration file.</td>
</tr>
<tr>
<td>Configuration Channel</td>
<td>Name of the configuration channel.</td>
</tr>
<tr>
<td>Systems Subscribed</td>
<td>Number of systems subscribed.</td>
</tr>
<tr>
<td>Systems Overriding</td>
<td></td>
</tr>
</tbody>
</table>

Click the Path of a file to see Details tab of the file. Click the name of the Configuration Channel to see the Overview tab of the channel. Clicking Systems Subscribed shows you all systems currently subscribed to the channel containing that file. Click Systems Overriding to see all systems that have a local (or override) version of the configuration file. The centrally-managed file will not be deployed to those systems.

**Locally Managed Configuration Files**

Locally-managed configuration files apply to only one system. They may be files in the system’s sandbox or files that can be deployed to the system at any time. Local files have higher priority than centrally-managed files. If a system is subscribed to a configuration channel with a given file and additionally has a locally-managed version of that file, the locally-managed version will be deployed.
The list of all local (override) configuration files for your systems includes the local configuration channels and the sandbox channel for each Provisioning-entitled system.

Click the Path of the file to see its Config File Details. Click the name of the system to which it belongs to see its System Details › Configuration › Overview page.

Including Macros in your Configuration Files

Being able to store one file and share identical configurations is useful, but in some cases you might need many variations of the same configuration file, or configuration files that differ only in system-specific details, such as host name and MAC address. In this case, you can use macros, or variables, within the configuration files. This allows you to upload and distribute a single file, with hundreds or even thousands of variations. In addition to variables for custom system information, the following standard macros are supported:

rhn.system.sid
rhn.system.profile_name
rhn.system.description
rhn.system.hostname
rhn.system.ip_address
rhn.system.custom_info(key_name)
rhn.system.net_interface.ip_address(eth_device)
rhn.system.net_interface.netmask(eth_device)
rhn.system.net_interface.broadcast(eth_device)
rhn.system.net_interface.hardware_address(eth_device)
rhn.system.net_interface.driver_module(eth_device)

To use this powerful feature, either upload or create a configuration file via the Configuration Channel Details page. Then open its Configuration File Details page and include the supported macros of your choice. Ensure that the delimiters used to offset your variables match those set in the Macro Start Delimiter and Macro End Delimiter fields and do not conflict with other characters in the file. We recommend that the delimiters be two characters in length and do not contain the percent (%) symbol.

For example, you may have a file applicable to all of your servers that differs only in IP address and host name. Rather than manage a separate configuration file for each server, you can create a single file, such as server.conf, with the IP address and host name macros included.

```
hostname={| rhn.system.hostname |}
ip_address={| rhn.system.net_interface.ip_address(eth0) |}
```

When the file is delivered to individual systems, whether through a scheduled action in the Uyuni WebUI or at the command line with the Uyuni Configuration Client (mgrcfg-client), the variables will be replaced with the host name and IP address of the system as recorded in Uyuni's system profile. In this example, the deployed version will look similar to this:

```
hostname=test.example.domain.com
ip_address=177.18.54.7
```
To capture custom system information, insert the key label into the custom information macro (`rhn.system.custom_info`). For example, if you developed a key labeled "asset" you can add it to the custom information macro in a configuration file to have the value substituted on any system containing it. The macro would look like this:

```
asset={@ rhn.system.custom_info(asset) @}
```

When the file is deployed to a system containing a value for that key, the macro gets translated, resulting in a string similar to this:

```
asset=Example#456
```

To include a default value (for example, if one is required to prevent errors), you can append it to the custom information macro, like this:

```
asset={@ rhn.system.custom_info(asset) = 'Asset #' @}
```

This default is overridden by the value on any system containing it.

The Uyuni Configuration Manager (`mgrcfg-manager`) is available on Uyuni client machines to assist with system management. It will not translate or alter files, as the tool is system agnostic. The `mgrcfg-manager` command does not depend on system settings. Binary files cannot be interpolated.

**Systems Menu**

Displays status information about your system in relation to configuration. There are two sub-pages: Managed Systems and Target Systems.

**Managed Systems**

By default the Managed Systems page is displayed. The listed systems have been fully prepared for configuration file deployment. The number of locally-managed and centrally-managed files is displayed.

Click the name of a system to show the relevant System Details › Configuration › Overview page.

Click the number of local files to show the System Details › Configuration › View/Modify Files › Locally-Managed Files page, where you can manage which local (override) files apply to the system.

Click the number of centrally-managed files to show the System Details › Configuration › Manage Configuration Channels › List/Unsubscribe from Channels page. On this page, you can unsubscribe from channels.
Target Systems

This page shows the systems that are not prepared for configuration file deployment, or are not yet subscribed to a configuration channel.

The table has three columns:

- The system name
- If the system is prepared for configuration file deployment
- The steps necessary to prepare the system.

To prepare a system, check the box to the left of the profile name then click the [Enable SUSE Manager Configuration Management] button. All of the preparatory steps that can be automatically performed are scheduled by Uyuni.

You will need to perform some manual tasks to enable configuration file deployment. Follow the on-screen instructions provided to assist with each step.

Schedule Menu

The Schedule section allows you to view actions and action chains.

Actions include:

- Package alterations, including installation, upgrade, removal, and rolling back of packages
- Client reboots
- Patch installation
- Configuration file alterations, including deploy, upload, and diff
- Hardware profile updates
- Package list profile updates
- Automated installation initiation
- Service pack migrations
- Remote commands

For more information about actions, see [Administration › Actions ›].

Pending Actions

The Schedule › Pending Actions section shows actions that are in progress, or that have not yet started. Use the Filter by Action field to search the list.

Cancel pending actions by checking the action in the list, and clicking [Cancel Actions]. If you archive
a pending action, it is not canceled, but the action item moves from the **Pending Actions** list to the **Archived Actions** list.

**Table 32. Actions List Columns**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Type of action to perform. Click the action to go to <strong>Action Details</strong>.</td>
</tr>
<tr>
<td>Scheduled Time</td>
<td>The earliest time to perform the action.</td>
</tr>
<tr>
<td>Succeeded</td>
<td>Number of clients on which this action was successful.</td>
</tr>
<tr>
<td>Failed</td>
<td>Number of clients on which this action has failed.</td>
</tr>
<tr>
<td>Pending</td>
<td>Number of clients on which this action is currently running</td>
</tr>
<tr>
<td>Total</td>
<td>Total number of clients on which this action has been scheduled.</td>
</tr>
</tbody>
</table>

For more information about actions, see [Administration › Actions › ].

**Recurring Actions**

The **Schedule › Recurring Actions** section shows all recurring actions that you have permissions for.

**Recurring Action Details**

View the details about an action from the action list. In the **Actions** column, click the [Details] icon for the action you are interested in.

**Disabling Recurring Actions**

Disabling an action stops the action recurring, but does not delete it. To disable a recurring action toggle the **Active** switch off. Enable them again by toggling the **Active** switch on. Disabled recurring actions remain in the list, but are not executed.

**Edit Recurring Actions**

Edit an existing recurring action. In the **Actions** column, click the [Edit] icon for the action you want to change. On the **Schedule Recurring Highstate** page, the existing properties are pre-filled. Make your changes, and click [Update Schedule].

**Delete Recurring Actions**

Deleting an action permanently removes it. To start using the action again, you will need to create a new action. In the **Actions** column, click the [Delete] icon for the action you want to delete, and confirm the deletion.

For more information about recurring actions, see [Administration › Actions › ].
Completed Actions

The Schedule › Completed Actions section shows actions that have been successfully completed. Use the Filter by Action field to search the list. Archive completed actions by checking the action in the list, and clicking [ Archive Actions ].

Table 33. Completed Actions List Columns

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Type of action to perform. Click the action to go to Action Details.</td>
</tr>
<tr>
<td>Scheduled Time</td>
<td>The earliest time to perform the action.</td>
</tr>
<tr>
<td>Succeeded</td>
<td>Number of clients on which this action was successful.</td>
</tr>
<tr>
<td>Failed</td>
<td>Number of clients on which this action has failed.</td>
</tr>
<tr>
<td>Pending</td>
<td>Number of clients on which this action is currently running</td>
</tr>
<tr>
<td>Total</td>
<td>Total number of clients on which this action has been scheduled.</td>
</tr>
</tbody>
</table>

For more information about actions, see [ Administration › Actions › ].

 Archived Actions

The Schedule › Archived Actions section shows actions that you have marked as archived. Use the Filter by Action field to search the list. Completed or failed actions can be archived.

For more information about actions, see [ Administration › Actions › ].

Action Chains

The Schedule › Action Chains If you need to perform a number of sequential actions on your clients, you can create an action chain to automate them. You can use action chains on both traditional and Salt clients.

For more information about action chains, see [ Administration › Actions › ].

Maintenance Windows

The Schedule › Maintenance Windows section allows you to manage your maintenance window schedules. To create a maintenance schedule, you need to have an existing .ical file that contains the calendar. Upload the calendar, create a new schedule, and assign the schedule to a client. When a schedule is applied to a client, you are prevented from executing some actions outside of the specified period.

Navigate to Schedule › Maintenance Windows › Schedules to see a list of all current schedules. Click
Create to create a new schedule. Click Edit to change the schedule.

Navigate to Schedule › Maintenance Windows › Calendars to see a list of all current calendars. Click Create to create a new calendar. Click Edit to change the calendar.

For more information about maintenance windows, see [Administration › Maintenance-windows › ].

Users Menu

The Users menu provides access to grant and edit permissions for those who administer your system groups. You can create new users, and edit user details, roles, and system groups.

The Users menu is only available if you are signed in with a Uyuni administrator account.

For more information about managing users, see [Administration › Users › ].

User Details

The User Details section provides additional details about the user account, and allows you to manage permissions for the user. You can also deactivate or delete users from this section.

Configure preference settings for users by navigating to the Preferences tab.

**Table 34. User Preferences**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Notification</td>
<td>Receive email for client and Taskomatic notifications, including a daily summary email.</td>
<td>Checked</td>
</tr>
<tr>
<td>Uyuni List Page Size</td>
<td>Maximum number of items that can appear in a list on a single page.</td>
<td>25 entries</td>
</tr>
<tr>
<td>&quot;Overview&quot; Start Page</td>
<td>Select the information panes to display on the Home › Overview page.</td>
<td>All checked</td>
</tr>
<tr>
<td>Time Zone</td>
<td>Set your local timezone.</td>
<td>System timezone</td>
</tr>
<tr>
<td>CSV Files</td>
<td>Select whether to use comma or semi-colon delimiters when producing downloadable CSV files.</td>
<td>Comma</td>
</tr>
</tbody>
</table>

For more information about managing users, see [Administration › Users › ].
User List

The Users › User List section provides access to the lists of users.

Active Users

The Users › User List › Active section shows all active users in your Uyuni Server.

Each user in the list shows the username, real name, assigned roles, and the date the user last signed in. Click btn:Create User to create a new user account. Click the username to go to the User Details page.

For more information about managing users, see [ Administration › Users › ].

Deactivated Users

The Users › User List › Deactivated section shows all deactivated users in your Uyuni Server.

Each user in the list shows the username, real name, assigned roles, the date the user last signed in, the user who deactivated the account, and the date the account was deactivated. Click [ Create User ] to create a new user account. Click the username to go to the User Details page.

To reactivate a user, check the username in the list and click [ Reactivate ].

For more information about managing users, see [ Administration › Users › ].

All Users

The Users › User List › All section shows all activated and deactivated users in your Uyuni Server. Deleted users are not shown in the list.

Each user in the list shows the username, real name, assigned roles, the date the user last signed in, and the current status of the user. Click btn:Create User to create a new user account. Click the username to go to the User Details page.

For more information about managing users, see [ Administration › Users › ].

System Group Configuration

The Users › System Configuration section allows you to configure system groups for your users.

System groups allow you to grant permissions to a group of users, instead of granting permissions to individuals. This is particularly useful if you have many users.

You can also configure system groups for users that have been externally authenticated.

For more information about managing users with system groups, see [ Administration › Users › ].
Admin Menu

The **Admin** menu provides access to features for managing Uyuni configuration. Configuration tasks include creating and managing organizations, users, and tasks. You can also use the setup wizard to help configure Uyuni.

![Admin menu is only available if you are logged in with a Uyuni administrator account.](image)

Setup Wizard

The **Admin › Setup Wizard** section helps you configure Uyuni. It is the default page when you use the Uyuni WebUI for the first time.

### Table 35. Setup Wizard Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP Proxy</td>
<td>Configure an HTTP proxy connection.</td>
</tr>
<tr>
<td>Organization Credentials</td>
<td>Configure an organization for accessing SUSE Customer Center.</td>
</tr>
<tr>
<td>Products</td>
<td>View product entitlements and subscribe to product channels.</td>
</tr>
</tbody>
</table>

For more information about the setup wizard, see [Installation › Setup-wizard ›](#).

Organizations

The **Admin › Organizations** section allows you to create and manage your Uyuni organizations. Click an organization in the list to see details.

For more information about organizations, see [Administration › Organizations ›](#).

Users

The **Admin › Users** section allows you to view and manage all users of the organization you are logged in to. Every user shows the username, real name, the organization they are associated with, and whether the user is an organization or Uyuni administrator.

Click a username to modify the user account details, and adjust administrator privileges.

For more information, see [Reference › Users ›](#).

Manager Configuration

The **Admin › Manager Configuration** section contains tabs to allow you to configure Uyuni.
### Table 36. Configuration Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Configure your Uyuni installation.</td>
</tr>
<tr>
<td>Bootstrap Script</td>
<td>Generate a custom bootstrap script.</td>
</tr>
<tr>
<td>Organizations</td>
<td>Create and configure organizations and users.</td>
</tr>
<tr>
<td>Restart</td>
<td>Restart Uyuni. You will need to do this after making configuration changes.</td>
</tr>
<tr>
<td>Cobbler</td>
<td>Run a Cobbler synchronization.</td>
</tr>
<tr>
<td>Bare-metal systems</td>
<td>Allow bare metal clients to be provisioned in preparation for autoinstallation.</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Enable server monitoring.</td>
</tr>
</tbody>
</table>

**General**

On the Admin › Manager Configuration › General page you can configure your Uyuni installation.

### Table 37. Bootstrap Script Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator Email Address</td>
<td>Email address of the Uyuni administrator.</td>
<td>Pre-populated</td>
</tr>
<tr>
<td>SUSE Manager Hostname</td>
<td>Hostname of the Uyuni Server.</td>
<td>Pre-populated</td>
</tr>
<tr>
<td>HTTP Proxy</td>
<td>The hostname and port of the proxy, if you are using one. Use syntax <code>&lt;hostname&gt;:&lt;port&gt;</code>, for example: <code>&lt;example.com&gt;:8080</code>.</td>
<td>None</td>
</tr>
<tr>
<td>HTTP Proxy username</td>
<td>The username to use on the proxy server, if you are using one.</td>
<td>None</td>
</tr>
<tr>
<td>HTTP Proxy password</td>
<td>The password to use on the proxy server, if you are using one.</td>
<td>None</td>
</tr>
<tr>
<td>Confirm HTTP Proxy password</td>
<td>The directory where RPM packages are mirrored.</td>
<td><code>/var/spacewalk/</code></td>
</tr>
<tr>
<td>RPM repository mount point</td>
<td>The hostname of the proxy server, if you are using one.</td>
<td>None</td>
</tr>
<tr>
<td>Default to SSL</td>
<td>Check to use SSL as the default value for communications.</td>
<td>Checked</td>
</tr>
</tbody>
</table>
Bootstrap Script

In the **Admin › Manager Configuration › Bootstrap Script** section you can generate a custom bootstrap script. Bootstrap scripts are used to register clients with Uyuni. The generated script will be placed in `/srv/www/htdocs/pub/bootstrap/` on your Uyuni Server.

Table 38. Bootstrap Script Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uyuni Server hostname</td>
<td>The hostname for the Uyuni Server to register the client to</td>
<td>Pre-populated</td>
</tr>
<tr>
<td>SSL cert location</td>
<td>Location and name of the SSL certificate</td>
<td>Pre-populated</td>
</tr>
<tr>
<td>Bootstrap using Salt</td>
<td>Check to bootstrap Salt clients, uncheck to bootstrap traditional clients.</td>
<td>Checked</td>
</tr>
<tr>
<td>Enable SSL</td>
<td>Check to use the corporate public CA certificate on the client, uncheck to use self-managed CA certificates.</td>
<td>Checked</td>
</tr>
<tr>
<td>Enable Client GPG checking</td>
<td>Check to use GPG, uncheck to disable GPG checking</td>
<td>Checked</td>
</tr>
<tr>
<td>Enable Remote Configuration</td>
<td>Check to allow configuration from a remote server.</td>
<td>Unchecked</td>
</tr>
<tr>
<td>Enable Remote Commands</td>
<td>Check to allow commands from a remote server.</td>
<td>Unchecked</td>
</tr>
<tr>
<td>Client HTTP Proxy</td>
<td>The hostname of the proxy server, if you are using one.</td>
<td>Unpopulated</td>
</tr>
<tr>
<td>Client HTTP Proxy Username</td>
<td>The username to use on the proxy server, if you are using one.</td>
<td>Unpopulated</td>
</tr>
<tr>
<td>Client HTTP Proxy Password</td>
<td>The password to use on the proxy server, if you are using one.</td>
<td>Unpopulated</td>
</tr>
</tbody>
</table>

Do not disable SSL in your bootstrap script. Ensure that **Enable SSL** is checked in the WebUI, or that the setting `USING_SSL=1` exists in the bootstrap script. If you disable SSL, the registration process requires custom SSL certificates. For more about custom certificates, see [ Administration › Ssl-certs ].

Configure Organizations

The **Admin › Manager Configuration › Organizations** section contains details about organizations in Uyuni, and provides links to create and configure organizations and users.
For more information about organizations, see [Installation › Server-setup › ].

Restart

The Admin › Manager Configuration › Restart section allows you to restart Uyuni. You will need to do this after making configuration changes. It will take some time for Uyuni to become available again after a restart.

Cobbler

The Admin › Manager Configuration › Cobbler page allows you to run a Cobbler synchronization. You can repair or rebuild the contents of the /srv/tftpboot/ and /srv/www/cobbler/ directories after a manual modification of the Cobbler setup.

For more information about Cobbler, see [Client-configuration › Cobbler › ].

Bare Metal Systems

In the Admin › Manager Configuration › Bare-metal systems section, you can turn on the bare metal feature. This allows you to provision bare metal clients in preparation for autoinstallation.

For more information about bare metal provisioning, see [Client-configuration › Autoinst-intro › ].

ISS Configuration

The Admin › ISS Configuration section is used to configure inter-server synchronization (ISS). ISS allows you to connect two or more Uyuni Servers and keep them up-to-date.

To set up ISS, you need to define one Uyuni Server as a master, with the other as a slave. If conflicting configurations exist, the system will prioritize the master configuration.

For more information about ISS, see [Administration › Iss › ].

ISS Master Setup

The Admin › ISS Configuration › Master Setup section is used to configure an inter-server synchronization (ISS) master.

If you are logged in to an ISS master, this page lists all slaves that can receive content from this master.

To add new slaves to the master, click [Add new slave]. You will need the slave’s Fully Qualified Domain Name (FQDN).

Check the Allow Slave to Sync? checkbox to enable the slave to synchronize with the master.

Check the Sync All Orgs to Slave? checkbox to synchronize all organizations to this slave.

For more information about ISS, see [Administration › Iss › ].
ISS Slave Setup

The **Admin › ISS Configuration › Slave Setup** section is used to configure an inter-server synchronization (ISS) slave.

If you are logged in to an ISS slave, this page lists all masters that the slave has previously synchronized with.

To add a new master, click [**Add new master**]. You will need the master’s Fully Qualified Domain Name (FQDN), and the full path to the CA Certificate. For example:

```
/etc/pki/trust/anchors
```

For more information about ISS, see [**Administration › Iss ›**].

Task Schedules

The **Admin › Task Schedules** section lists all predefined task bunches. Tasks can be grouped together in bunches to simplify managing them.

This page shows the schedule for each bunch of tasks. Every schedule shows how frequently it runs using **cron** notation, the time it became active, and the bunch that it belongs to.

Click a schedule to change its frequency, disable, or delete it.

⚠️ Do not disable or delete a schedule if you are not certain what it does. Some schedules are essential for Uyuni to work properly.

For more information about task schedules, see [**Administration › Task-schedules ›**].

Task Engine Status

The **Admin › Task Engine Status** section shows all running tasks by the Uyuni task engine.

Navigate to the **Last Execution Times** tab to see the task list. Each task shows the time it was last run, and the current status of the task.

Navigate to the **Runtime Status** tab to see all tasks that have run in the past five minutes. Each task shows the start and end time, the amount of time the task ran for, and the current status. Some tasks will also provide further data, if available.

Show Tomcat Logs

The **Admin › Show Tomcat Logs** section shows the Apache Tomcat log file. You can also view the Tomcat log from the command prompt at `/var/log/rhn/rhn_web_ui.log`. 
Help Menu

The Help section opens the current version of the Uyuni documentation in a new browser tab. This is the documentation installed locally on your Uyuni Server.

For all versions and formats of the Uyuni documentation, see https://documentation.suse.com/suma/.

Documentation

The Help › Documentation 2020.09 section opens the current version of the Uyuni documentation in a new browser tab. This is the documentation installed locally on your Uyuni Server.

For all versions and formats of the SUSE Manager documentation, including API documentation, see https://documentation.suse.com/suma/.

For all versions and formats of the Uyuni documentation, see https://www.uyuni-project.org/uyuni-docs/uyuni/index.html.

Release Notes

The Help › Release Notes section opens the current version of the Uyuni Release Notes in a new browser tab.

API Menu

The Help › API section contains links to the available API calls, and includes an API FAQ and sample scripts.

API Overview

The Help › API › Overview section provides a list of available API calls. Click the name of an API call to see the relevant documentation.

For the full API documentation, see https://documentation.suse.com/suma/.

API FAQ

The Help › API › FAQ section contains frequently asked questions related to Uyuni APIs.

API Sample Scripts

The Help › API › Sample Scripts section contains example API calls for you to copy. The scripts are written in Ruby, Perl, and Python.
spacecmd Reference

The following section will help you become more familiar with the spacecmd command-line interface. This interface is available for Uyuni, Satellite and Spacewalk servers. spacecmd is written in Python and uses the XML-RPC API provided by the server.

What can spacecmd do for me?

- Manage almost all aspects of SUSE Manager from the command line with spacecmd
- Tab completion is available for all commands
- Single commands can be passed to spacecmd without entering the interactive shell (excellent for shell scripts)
- May also be accessed and used as an interactive shell
- Advanced search methods are available for finding specific systems, thus removing the need to create system groups (nevertheless groups are still recommended)
- Complete functionality through the Spacewalk API. Almost all commands that can be executed from the WebUI can be performed via the spacecmd command-line

Configuring spacecmd

The following section provides configuration tips for spacecmd.

Setup spacecmd Credentials

Normally spacecmd prompts you for a username and password each time you attempt to login to the interactive shell. Alternatively you can configure spacecmd with a credentials file to avoid this requirement.

Procedure: Creating a spacecmd Credentials File

1. Create a hidden spacecmd directory in your home directory and set permissions:

   ```
   mkdir ~/.spacecmd
   chmod 700 ~/.spacecmd
   ```

2. Create a config file in ~/.spacecmd/ and provide proper permissions:

   ```
   touch ~/.spacecmd/config
   chmod 600 ~/.spacecmd/config
   ```

3. Edit the config file and add the following configuration lines. (You can use either localhost or the FQDN of your Uyuni server):

   ```
4. Check connectivity by entering `spacecmd` as root:

```bash
# spacecmd
```

**spacecmd Quiet Mode**

By default spacecmd prints server status messages during connection attempts. These messages can cause a lot of clutter when parsing system lists. The following alias will force spacecmd to use quiet mode thus preventing this behavior. Add the following line to your `~/.bashrc` file:

```bash
alias spacecmd='spacecmd -q'
```

**spacecmd Help**

`spacecmd help` can be accessed by typing `spacecmd -h --help`

```
Usage: spacecmd [options] [command]

Options:
  -c CONFIG, --config CONFIG
  --config file to use [default: ~/.spacecmd/config]
  -u USERNAME, --username=USERNAME
  --username username to connect to the server
  -p PASSWORD, --password=PASSW
  --password password to connect to the server
  -s SERVER, --server=SERVER
  --server server to connect to [default: local hostname]
  --nosp
  --nohistory
  --history
  --yes
  --yes answer yes for all questions
  -y, --yes
  -q, --quiet
  --quiet
  -d, --debug
  --debug
  -h, --help
  --help show this help message and exit
```

As root you can access available functions without entering the spacecmd shell:
# spacecmd -- help

Documented commands (type help <topic>):

```
activationkey_addchildchannels  org_trustdetails
activationkey_addconfigchannels  package_details
activationkey_addentitlements   package_listdependencies
activationkey_addgroups         package_listerrata
activationkey_addpackages       package_listinstalledsystems
activationkey_clone             package_listorphans
activationkey_create            package_remove
activationkey_delete            package_removeorphans
activationkey_details           package_search
activationkey_diff              repo_addfilters
activationkey_disable           repo_clearfilters
activationkey_disableconfigdeployment repo_create
```

...
group_restore                          system_delete
help                                   system_deletecrashes
history                                system_deletenotes
kickstart_addactivationkeys            system_deploypackageprofile
kickstart_addchildchannels             system_deployconfigfiles
kickstart_addcryptokeys                system_details
kickstart_addfilepreservations         system_getcrashfiles
kickstart_addoption                    system_getinstallpackage
kickstart_addpackages                  system_list
kickstart_addscript                    system_listbasechannel
kickstart_addvariable                  system_listchildchannels
kickstart_clone                        system_listconfigchannels
kickstart_create                       system_listconfigfiles
kickstart_delete                       system_listcrashedsystems
kickstart_details                      system_listcrashesbysystem
kickstart_diff                         system_listcustomvalues
kickstart_disableconfigmanagement      system_listentitlements
kickstart_disableremotecommands        system_listscripts
kickstart_enableconfigmanagement       system_listevents
kickstart_enablelogging                system_listhardware
kickstart_enableremotecommands         system_listinstalledpackages
kickstart_export                       system_listpackageprofiles
kickstart_getcontents                  system_listpackageversion
kickstart_getsoftwaredetails          system_listpartitions
kickstart_getupdatetype                system_listpreferences
kickstart_import                       system_listreboot
kickstart_import_raw                   system_listremotechannels
kickstart_importjson                   system_listremoteconfigfiles
kickstart_list                          system_listremoteconfigfiles
kickstart_listactivationkeys           system_listremotecustomvalues
kickstart_listchildchannels            system_listremotecustomvalues
kickstart_listcryptokeys               system_listremotecommands
kickstart_listcustomoptions            system_listremotecommands
kickstart_listlogistics                system_listretention
kickstart_listpackages                 system_listselinux
kickstart_listscripts                  system_listsetpartitions
kickstart_listvariables                system_listsetsecrets
kickstart_removeactivationkeys         system_listsetuser
kickstart_removechildchannels          system_listsetuser
kickstart_removecryptokeys             system_listsetuser
kickstart_removefilepreservations      system_listsetuser
kickstart_removeoptions                system_listsetuser
kickstart_removepackages               system_listsetuser
kickstart_removescript                 system_listsetuser
kickstart_removevariables              system_listsetuser
kickstart_rename                       system_listsetuser
kickstart_setcustomoptions             system_listsetuser
kickstart_setdistribution              system_listselinux
kickstart_setlocale                    system_listselinux
kickstart_setpartitions                system_listselinux
kickstart_setselinux                   system_listselinux
kickstartsetupdatetype                system_listselinux
kickstart_updatevariable               system_listselinux
list_proxies                           system_listselinux
login                                   system_listselinux
logout                                  system_listselinux
org_addtrust                           system_listselinux
org_addrole                             system_listselinux
org_delete                              system_listselinux
org_details                             system_listselinux
org_list                                system_listselinux
org_listtrusts                         system_listselinux
org_listusers                           system_listselinux
org_removetrust                        system_listselinux
org_rename                              system_listselinux

Miscellaneous help topics:
history

List recent commands using the `history` command.

```bash
spacecmd {SSM:0}> history
1  help
2  api
3  exit
4  help
5  time --help
6  quit
7  clear
spacecmd {SSM:0}>
```

Troubleshooting spacecmd

This section provides troubleshooting solutions when working with spacecmd

Creating a Distribution With spacecmd Sets Localhost Instead of FQDN

The support article associated with this issue may be located at https://www.suse.com/support/kb/doc/?id=7018627

**Situation**

When creating a distribution with spacecmd it will automatically set localhost as the server name instead of the FQDN of SUSE Manager. This will result in the following kernel option being written:

```
install=http://localhost/ks/dist/<distributionname>
```

**Resolution**

Set the FQDN in `~/.spacecmd/config` like the following:

```bash
test:~/.spacecmd # cat config
[spacecmd]
server=test.mytest.env
username=admin
password=password
nossl=0
```

**Cause**

This problem may be experienced if `~/.spacecmd/config` has been created and the server name option was set to localhost.
Spacecmd not Accepting Commands or Options

When running spacecmd non-interactively, you must escape arguments passed to the command. Always put `--` before arguments, to avoid them being treated as global arguments. Additionally, make sure you escape any quotes that you pass to the functions so that they are not interpreted. An example of a well-formed spacecmd command:

```
spacecmd -s server1 -- softwarechannel_create -n "My Channel" -l channel1 -a x86_64
```

Spacecmd caching problems

The spacecmd command keeps a cache of the various systems and packages that you have installed. Sometimes, this can result in a mismatch between the system name and the system ID. To clear the spacecmd cache, use this command:

```
spacecmd clear_caches
```

spacecmd Functions

The following sections provide descriptions for all documented spacecmd commands. Each command is grouped by the function prefix. Keep in mind that all commands may also be called using scripts and passed to spacecmd as stand-alone commands.

activationkey_

The following spacecmd commands are available for use with activation keys.

activationkey_addchildchannels

Add child channels to an activation key.

```
usage: activationkey_addchildchannels KEY <CHANNEL ...>
```

activationkey_addconfigchannels

Add configuration channels to an activation key.

```
usage: activationkey_addconfigchannels KEY <CHANNEL ...> [options]

options:
  -t add channels to the top of the list
  -b add channels to the bottom of the list
```
activationkey_addentitlements

Add available entitlements to an activation key.

WebUI Name Change

In the WebUI entitlements are known as System Types. Nevertheless the spacecmd backend still utilizes the entitlements term. Therefore any scripts you may be using can remain unchanged.

usage: activationkey_addentitlements KEY <ENTITLEMENT ...>

activationkey_addgroups

Add existing groups to an activation key.

usage: activationkey_addgroups KEY <GROUP ...>

activationkey_addpackages

Add packages to an activation key.

usage: activationkey_addpackages KEY <PACKAGE ...>

activationkey_clone

Clone an existing activation key.

usage examples:

```
activationkey_clone foo_key -c bar_key
activationkey_clone foo_key1 foo_key2 -c prefix
activationkey_clone foo_key -x "s/foo/bar"
activationkey_clone foo_key1 foo_key2 -x "s/foo/bar"
```

options:

```
-c CLONE_NAME : Name of the resulting key, treated as a prefix for multiple keys
-x "s/foo/bar" : Optional regex replacement, replaces foo with bar in the clone description, base-channel label, child-channel labels, config-channel names
```

activationkey_create

Create a new activation key.
**usage:** activationkey_create [options]

**options:**
- **-n NAME**
- **-d DESCRIPTION**
- **-b BASE_CHANNEL**
- **-u** set key as universal default
- **-e** [enterprise_entitled, virtualization_host]

**activationkey_delete**

Delete an existing activation key.

**usage:** activationkey_delete KEY

**activationkey_details**

Show details of an existing activation key.

**usage:** activationkey_details KEY ...

**activationkey_diff**

Check the difference between two activation keys.

**usage:** activationkey_diff SOURCE_ACTIVATIONKEY TARGET_ACTIVATIONKEY

**activationkey_disable**

Disable an existing activation key.

**usage:** activationkey_disable KEY [KEY ...]

**activationkey_disableconfigdeployment**

Disable configuration channel deployment for an existing activation key.

**usage:** activationkey_disableconfigdeployment KEY

**activationkey_enable**

Enable an existing activation key.
usage: activationkey_enable KEY [KEY ...]

activationkey_enableconfigdeployment

Enable configuration channel deployment for an existing activation key.

usage: activationkey_enableconfigdeployment KEY

activationkey_export

Export activation key(s) to a JSON formatted file.

usage: activationkey_export [options] [<KEY> ...]

options:
  -f outfile.json : specify an output filename, defaults to <KEY>.json
  if exporting a single key, akeys.json for multiple keys,
  or akey_all.json if no KEY specified (export ALL)

Note: KEY list is optional, default is to export ALL keys

activationkey_import

Import activation key(s) from JSON file(s)

usage: activationkey_import <JSONFILE ...>

activationkey_list

List all existing activation keys.

usage: activationkey_list

activationkey_listbasechannel

List the base channel associated with an activation key.

usage: activationkey_listbasechannel KEY

activationkey_listchildchannels

List child channels associated with an activation key.
usage: activationkey_listchildchannels KEY

activationkey_listconfigchannels
List configuration channels associated with an activation key.

usage: activationkey_listconfigchannels KEY

activationkey_listentitlements
List entitlements associated with an activation key.

usage: activationkey_listentitlements KEY

activationkey_listgroups
List groups associated with an activation key.

usage: activationkey_listgroups KEY

activationkey_listpackages
List packages associated with an activation key.

usage: activationkey_listpackages KEY

activationkey_listsystems
List systems registered with an activation key.

usage: activationkey_listsystems KEY

activationkey_removechildchannels
Remove child channels from an activation key.

usage: activationkey_removechildchannels KEY <CHANNEL ...>

activationkey_removeconfigchannels
Remove configuration channels from an activation key.
activationkey_removeconfigchannels

Remove configuration channels from an activation key.

usage: activationkey_removeconfigchannels KEY <CHANNEL ...>

activationkey_removeentitlements

Remove entitlements from an activation key.

usage: activationkey_removeentitlements KEY <ENTITLEMENT ...>

activationkey_removegroups

Remove groups from an activation key.

usage: activationkey_removegroups KEY <GROUP ...>

activationkey_removepackages

Remove packages from an activation key.

usage: activationkey_removepackages KEY <PACKAGE ...>

activationkey_setbasechannel

Set the base channel for an activation key.

usage: activationkey_setbasechannel KEY CHANNEL

activationkey_setconfigchannelorder

Set the ranked order of configuration channels.

usage: activationkey_setconfigchannelorder KEY

activationkey_setcontactmethod

Set the contact method to use for systems registered with a specific key. (Use the XML-RPC API to access the latest contact methods.) The following contact methods are available for use with traditional spacecmd: ['default', 'ssh-push', 'ssh-push-tunnel']

usage: activationkey_setcontactmethod KEY CONTACT_METHOD
activationkey_setdescription

Add a description for an activation key.

usage: activationkey_setdescription KEY DESCRIPTION

activationkey_setuniversaldefault

Set a specific key as the universal default.

usage: activationkey_setuniversaldefault KEY

Universal Default Key
Using a universal default key is not a Best Practice recommendation.

activationkey_setusagelimit

Set the usage limit of an activation key, can be a number or "unlimited".

usage: activationkey_setbasechannel KEY <usage limit>
usage: activationkey_setbasechannel KEY unlimited

Usage Limits
Usage limits are only applicable to traditionally managed systems. Currently usage limits do not apply to Salt or foreign managed systems.

api

The following API command and its options are available for calling the XML-RPC API directly. Calling the API directly allows you to use the latest features in SUSE Manager from the command-line using spacecmd as a wrapper for stand-alone commands or used from within scripts.

Use the api Command for Access to Latest Features
spacecmd is the traditional tool for spacewalk. It functions out of the box with SUSE Manager but you should know that latest features (for example, Salt) are often excluded from traditional spacecmd command-line tool. To gain access to the latest feature additions call api api.getApiCallList from within spacecmd to list all currently available API commands formatted in json. You can then call these commands directly.

api_

Call XML-RPC API with arguments directly.
usage: api [options] API_STRING

options:
-A, --args  Arguments for the API other than session id in comma separated strings or JSON expression
-F, --format Output format
-o, --output Output file

examples:
  api api.getApiCallList
  api --args "sysgroup_A" systemgroup.listSystems
  api -A "rhel-i386-server-5,2011-04-01,2011-05-01" -F "%(name)s" \channel.software.listAllPackages

clear

Clears the terminal screen

clear_caches

Clear the internal caches kept for systems and packages

usage: clear_caches

configchannel_

The following spacecmd commands are available for use with configuration channels.

configchannel_addfile

Creates a configuration file.

usage: configchannel_addfile [CHANNEL] [options]

options:
-c CHANNEL
-p PATH
-r REVISION
-o OWNER [default: root]
-g GROUP [default: root]
-m MODE [default: 0644]
-x SELINUX_CONTEXT
-d path is a directory
-s path is a symlink
-b path is a binary (or other file which needs base64 encoding)
-t SYMLINK_TARGET
-f local path to file contents

Note re binary/base64: Some text files, notably those containing trailing newlines, those containing ASCII escape characters (or other characters not allowed in XML) need to be sent as binary (-b). Some effort is made to auto-detect files which require this, but you may need to explicitly specify.
configchannel_backup
Backup a configuration channel.

usage: configchannel_backup CHANNEL [OUTDIR]
OUTDIR defaults to $HOME/spacecmd-backup/configchannel/YYYY-MM-DD/CHANNEL

configchannel_clone
Clone configuration channel(s).

usage examples:
  configchannel_clone foo_label -c bar_label
  configchannel_clone foo_label1 foo_label2 -c prefix
  configchannel_clone foo_label -x "s/foo/bar"
  configchannel_clone foo_label1 foo_label2 -x "s/foo/bar"

options:
  -c CLONE_LABEL : name/label of the resulting cc (note does not update
description, see -x option), treated as a prefix if
  multiple keys are passed
  -x "s/foo/bar" : Optional regex replacement, replaces foo with bar in the
  clone name, label and description
  Note : If no -c or -x option is specified, interactive is assumed

configchannel_create
Create a configuration channel.

usage: configchannel_create [options]

options:
  -n NAME
  -l LABEL
  -d DESCRIPTION

configchannel_delete
Delete a configuration channel.

usage: configchannel_delete CHANNEL ...

configchannel_details
Show the details of a configuration channel.

usage: configchannel_details CHANNEL ...
configchannel_diff

Find differences between configuration channels.

usage: configchannel_diff SOURCE_CHANNEL TARGET_CHANNEL

configchannel_export

Export configuration channel(s) to a json formatted file.

usage: configchannel_export <CHANNEL>... [options]
options:
- f outfile.json : specify an output filename, defaults to <CHANNEL>.json
  if exporting a single channel, ccs.json for multiple
  channels, or cc_all.json if no CHANNEL specified
  e.g (export ALL)

Note: CHANNEL list is optional, default is to export ALL

configchannel_filedetails

Show the details of a file in a configuration channel.

usage: configchannel_filedetails CHANNEL FILE [REVISION]

configchannel_forcedeploy

Forces a redeployment of files within a channel on all subscribed systems.

usage: configchannel_forcedeploy CHANNEL

configchannel_import

Import configuration channel(s) from a json file.

usage: configchannel_import <JSONFILES...>

configchannel_list

List all configuration channels.

usage: configchannel_list
**configchannel_listfiles**

List all files in a configuration channel.

*usage: configchannel_listfiles CHANNEL ...*

**configchannel_listsystems**

List all systems subscribed to a configuration channel.

*usage: configchannel_listsystems CHANNEL*

**configchannel_removefiles**

Remove configuration files.

*usage: configchannel_removefiles CHANNEL <FILE ...>*

**configchannel_sync**

Sync configuration files between two configuration channels.

*usage: configchannel_sync SOURCE_CHANNEL TARGET_CHANNEL*

**configchannel_updatefile**

Update a configuration file.

*usage: configchannel_updatefile CHANNEL FILE*

**configchannel_verifyfile**

Verify a configuration file.

*usage: configchannel_verifyfile CHANNEL FILE <SYSTEMS>*

<SYSTEMS> may be substituted with any of the following targets:

- name
- ssm (see 'help ssm')
- search:QUERY (see 'help system_search')
- group:GROUP
- channel:CHANNEL
cryptokey_

The following spacecmd commands are available for use with cryptographic keys.

cryptokey_create

Create a cryptographic key.

Usage:
```
usage: cryptokey_create [options]
```

Options:
```
-t GPG or SSL
-d DESCRIPTION
-f KEY_FILE
```

cryptokey_delete

Delete a cryptographic key.

Usage:
```
usage: cryptokey_delete NAME
```

cryptokey_details

Show the contents of a cryptographic key.

Usage:
```
usage: cryptokey_details KEY ...
```

cryptokey_list

List all cryptographic keys (SSL, GPG).

Usage:
```
usage: cryptokey_list
```

custominfo_

The following spacecmd commands are available for working with custom keys.

custominfo_createkey

Create a custom key.

Usage:
```
usage: custominfo_createkey [NAME] [DESCRIPTION]
```
custominfo_deletekey
Delete a custom key.

usage: custominfo_deletekey KEY ...

custominfo_details
Show the details of a custom key.

usage: custominfo_details KEY ...

custominfo_listkeys
List all custom keys.

usage: custominfo_listkeys

custominfo_updatekey
Update a custom key.

usage: custominfo_updatekey [NAME] [DESCRIPTION]

distribution_
The following spacecmd commands are available for working with kickstart distributions.

distribution_create
Create a Kickstart tree.

usage: distribution_create [options]

options:
  -n NAME
  -p path to tree
  -b base channel to associate with
  -t install type [fedora|rhel_4/5/6|suse|generic_rpm]

distribution_delete
Delete a Kickstart tree.
distribution_delete

Show the details of a Kickstart tree.

usage: distribution_delete LABEL

distribution_details

List the available autostart trees.

usage: distribution_details LABEL

distribution_list

Rename a Kickstart tree.

usage: distribution_rename OLDNAME NEWNAME

distribution_update

Update the path of a Kickstart tree.

usage: distribution_update NAME [options]

options:
- -p path to tree
- -b base channel to associate with
- -t install type [fedora|rhel_4/5/6|suse|generic_rpm]

errata_

The following spacecmd commands are available for use with errata data.

errata_apply

Apply an patch to all affected systems.

usage: errata_apply ERRATA|search:XXX ...
errata_delete
Delete an patch.

usage: errata_delete ERRATA|search:XXX ...

errata_details
Show the details of an patch.

usage: errata_details ERRATA|search:XXX ...

errata_findbycve
List errata addressing a CVE.

usage: errata_findbycve CVE-YYYY-NNNN ...

errata_list
List all patches.

usage: errata_list

errata_listaffectedsystems
List of systems affected by an patch.

usage: errata_listaffectedsystems ERRATA|search:XXX ...

errata_listcves
List of CVEs addressed by an patch.

usage: errata_listcves ERRATA|search:XXX ...

errata_publish
Publish a patch to a channel.

usage: errata_publish ERRATA|search:XXX <CHANNEL ...>
errata_search
List patches that meet user provided criteria

usage: errata_search CVE|RHSA|RHBA|RHEA|CLA ...
Example:
> errata_search CVE-2009:1674
> errata_search RHSA-2009:1674

errata_summary
Print a summary of all errata.

usage: errata_summary

filepreservation_create
Create a file preservation list.

usage: filepreservation_create [NAME] [FILE ...]

filepreservation_delete
Delete a file preservation list.

filepreservation_details
Show the details of a file preservation list.

usage: filepreservation_details NAME

filepreservation_list
List all file preservations.

usage: filepreservation_list
get_

The following spacecmd commands are available for use with get.

get_apiversion

Display the API version of the server.

usage: get_apiversion

get_certificateexpiration

Print the expiration date of the server’s entitlement certificate.

usage: get_certificateexpiration

get_serverversion

Display SUSE Manager server version.

usage: get_serverversion

get_session

Show the current session string.

usage: get_session

group_

group_addsystems

Add systems to a group.

usage: group_addsystems GROUP <SYSTEMS>

<SYSTEMS> can be any of the following:
name
ssm (see 'help ssm')
search:QUERY (see 'help system_search')
group:GROUP
channel:CHANNEL
**group_backup**

Backup a system group.

```bash
usage: group_backup NAME [OUTDIR]
OUTDIR defaults to $HOME/spacecmd-backup/group/YYYY-MM-DD/NAME
```

**group_create**

Create a system group.

```bash
usage: group_create [NAME] [DESCRIPTION]
```

**group_delete**

Delete a system group.

```bash
usage: group_delete NAME ...
```

**group_details**

Show the details of a system group.

```bash
usage: group_details GROUP ...
```

**group_list**

List available system groups.

```bash
usage: group_list
```

**group_listsystems**

List the members of a group.

```bash
usage: group_listsystems GROUP
```

**group_removesystems**

Remove systems from a group.
usage: group_removesystems GROUP <SYSTEMS>

<SYSTEMS> can be any of the following:
name
ssm (see 'help ssm')
search:QUERY (see 'help system_search')
group:GROUP
channel:CHANNEL

**group_restore**

Restore a system group.

usage: group_backup INPUTDIR [NAME] ...

**kickstart**

The following spacecmd functions are available for use with kickstart.

**kickstart_addactivationkeys**

Add activation keys to a Kickstart profile.

usage: kickstart_addactivationkeys PROFILE <KEY ...>

**kickstart_addchildchannels**

Add a child channels to a Kickstart profile.

usage: kickstart_addchildchannels PROFILE <CHANNEL ...>

**kickstart_addcryptokeys**

Add cryptography keys to a Kickstart profile.

usage: kickstart_addcryptokeys PROFILE <KEY ...>

**kickstart_addfilepreservations**

Add file preservations to a Kickstart profile.

usage: kickstart_addfilepreservations PROFILE <FILELIST ...>
**kickstart_addoption**

Set an option for a Kickstart profile.

```plaintext
usage: kickstart_addoption PROFILE KEY [VALUE]
```

**kickstart_addpackages**

Add packages to a Kickstart profile.

```plaintext
usage: kickstart_addpackages PROFILE <PACKAGE ...>
```

**kickstart_addscript**

Add a script to a Kickstart profile.

```plaintext
usage: kickstart_addscript PROFILE [options]
options:
- `-p` PROFILE
- `-e` EXECUTION_TIME ['pre', 'post']
- `-i` INTERPRETER
- `-f` FILE
- `-c` execute in a chroot environment
- `-t` ENABLING_TEMPLATING
```

**kickstart_addvariable**

Add a variable to a Kickstart profile.

```plaintext
usage: kickstart_addvariable PROFILE KEY VALUE
```

**kickstart_clone**

Clone a Kickstart profile.

```plaintext
usage: kickstart_clone [options]
options:
- `-n` NAME
- `-c` CLONE_NAME
```

**kickstart_create**

Create a Kickstart profile.
usage: kickstart_create [options]

options:
  -n NAME
  -d DISTRIBUTION
  -p ROOT_PASSWORD
  -v VIRT_TYPE ['none', 'para_host', 'qemu', 'qemu', 'xenfv', 'xenpv']

kickstart_delete

Delete kickstart profile(s).

usage: kickstart_delete PROFILE
usage: kickstart_delete PROFILE1 PROFILE2
usage: kickstart_delete "PROF*"

kickstart_details

Show the details of a Kickstart profile.

usage: kickstart_details PROFILE

kickstart_diff

List differences between two kickstart files.

usage: kickstart_diff SOURCE_CHANNEL TARGET_CHANNEL

kickstart_disableconfigmanagement

Disable configuration management on a Kickstart profile.

usage: kickstart_disableconfigmanagement PROFILE

kickstart_disableremotecommands

Disable remote commands on a Kickstart profile.

usage: kickstart_disableremotecommands PROFILE

kickstart_enableconfigmanagement

Enable configuration management on a Kickstart profile.
usage: kickstart_enableconfigmanagement PROFILE

kickstart_enableconfigmanagement

Enable logging for a Kickstart profile.

usage: kickstart_enableconfigmanagement PROFILE

kickstart_enablelogging

Enable remote commands on a Kickstart profile.

usage: kickstart_enablelogging PROFILE

kickstart_enableremotecommands

Export kickstart profile(s) to json formatted file.

usage: kickstart_export <KSPROFILE>... [options]
options:
    -f outfile.json : specify an output filename, defaults to <KSPROFILE>.json
    if exporting a single kickstart, profiles.json for multiple kickstarts, or ks_all.json if no KSPROFILE specified
e.g (export ALL)
Note : KSPROFILE list is optional, default is to export ALL

kickstart_getcontents

Show the contents of a Kickstart profile as they would be presented to a client.

usage: kickstart_getcontents LABEL

kickstart_getsoftwaredetails

Gets kickstart profile software details.

usage: kickstart_getsoftwaredetails KS_LABEL
usage: kickstart_getsoftwaredetails KS_LABEL KS_LABEL2 ...

kickstart_getupdatetype

Get the update type for a kickstart profile(s).
kickstart_getupdatetype

usage: kickstart_getupdatetype PROFILE
usage: kickstart_getupdatetype PROFILE1 PROFILE2
usage: kickstart_getupdatetype "PROF*"

kickstart_import

Import a Kickstart profile from a file.

usage: kickstart_import [options]

options:
- f FILE
- n NAME
- d DISTRIBUTION
- v VIRT_TYPE ['none', 'para_host', 'qemu', 'xenfv', 'xenpv']

kickstart_import_raw

Import a raw Kickstart or autoyast profile from a file.

usage: kickstart_import_raw [options]

options:
- f FILE
- n NAME
- d DISTRIBUTION
- v VIRT_TYPE ['none', 'para_host', 'qemu', 'xenfv', 'xenpv']

kickstart_importjson

Import kickstart profile(s) from json file.

usage: kickstart_import <JSONFILES...>

kickstart_list

List the available Kickstart profiles.

usage: kickstart_list

kickstart_listactivationkeys

List the activation keys associated with a Kickstart profile.

usage: kickstart_listactivationkeys PROFILE
kickstart_listchildchannels

List the child channels of a Kickstart profile.

usage: kickstart_listchildchannels PROFILE

kickstart_listcryptokeys

List the crypto keys associated with a Kickstart profile.

usage: kickstart_listcryptokeys PROFILE

kickstart_listcustomoptions

List the custom options of a Kickstart profile.

usage: kickstart_listcustomoptions PROFILE

kickstart_listoptions

List the options of a Kickstart profile.

usage: kickstart_listoptions PROFILE

kickstart_listpackages

List the packages for a Kickstart profile.

usage: kickstart_listpackages PROFILE

kickstart_listscripts

List the scripts for a Kickstart profile.

usage: kickstart_listscripts PROFILE

kickstart_listvariables

List the variables of a Kickstart profile.

usage: kickstart_listvariables PROFILE
**kickstart_removeactivationkeys**
Remove activation keys from a Kickstart profile.

```bash
usage: kickstart_removeactivationkeys PROFILE <KEY ...>
```

**kickstart_removechildchannels**
Remove child channels from a Kickstart profile.

```bash
usage: kickstart_removechildchannels PROFILE <CHANNEL ...>
```

**kickstart_removecryptokeys**
Remove crypto keys from a Kickstart profile.

```bash
usage: kickstart_removecryptokeys PROFILE <KEY ...>
```

**kickstart_removefilepreservations**
Remove file preservations from a Kickstart profile.

```bash
usage: kickstart_removefilepreservations PROFILE <FILE ...>
```

**kickstart_removeoptions**
Remove options from a Kickstart profile.

```bash
usage: kickstart_removeoptions PROFILE <OPTION ...>
```

**kickstart_removepackages**
Remove packages from a Kickstart profile.

```bash
usage: kickstart_removepackages PROFILE <PACKAGE ...>
```

**kickstart_removescript**
Add a script to a Kickstart profile.

```bash
usage: kickstart_removescript PROFILE [ID]
```
**kickstart_removevariables**

Remove variables from a Kickstart profile.

usage: kickstart_removevariables PROFILE <KEY ...>

**kickstart_rename**

Rename a Kickstart profile

usage: kickstart_rename OLDNAME NEWNAME

**kickstart_setcustomoptions**

Set custom options for a Kickstart profile.

usage: kickstart_setcustomoptions PROFILE

**kickstart_setdistribution**

Set the distribution for a Kickstart profile.

usage: kickstart_setdistribution PROFILE DISTRIBUTION

**kickstart_setlocale**

Set the locale for a Kickstart profile.

usage: kickstart_setlocale PROFILE LOCALE

**kickstart_setpartitions**

Set the partitioning scheme for a Kickstart profile.

usage: kickstart_setpartitions PROFILE

**kickstart_setselinux**

Set the SELinux mode for a Kickstart profile.

usage: kickstart_setselinux PROFILE MODE
kickstart_setupdatetype

Set the update type for a kickstart profile(s).

```
usage: kickstart_setupdatetype [options] KS_LABEL
options:
  -u UPDATE_TYPE ['red_hat', 'all', 'none']
```

kickstart_updatevariable

Update a variable in a Kickstart profile.

```
usage: kickstart_updatevariable PROFILE KEY VALUE
```

list_proxies

The following spacecmd function is available for listing proxies.

```
list_proxies
```

login

Connect as a specific user to the SUSE manager server.

```
# spacecmd -- login <USERNAME>
```

logout

Logout from server as the current user.

```
# spacecmd -- logout
```

org

The following spacecmd functions are available for use with organizations.
org_addtrust
Add a trust between two organizations

usage: org_addtrust YOUR_ORG ORG_TO_TRUST

org_create
Create an organization.

usage: org_create [options]
options:
  -n ORG_NAME
  -u USERNAME
  -P PREFIX (Dr., Mr., Miss, Mrs., Ms.)
  -f FIRST_NAME
  -l LAST_NAME
  -e EMAIL
  -p PASSWORD
  --pam enable PAM authentication

org_delete
Delete an organization.

usage: org_delete NAME

org_details
Show the details of an organization.

usage: org_details NAME

org_list
List all organizations.

usage: org_list

org_listtrusts
List an organization’s trusts.

org_listtrusts NAME
org_listusers

List an organization's users.

org_listusers NAME

org_removetrust

Remove a trust between two organizations.

usage: org_removetrust YOUR_ORG TRUSTED_ORG

org_rename

Rename an organization.

usage: org_rename OLDNAME NEWNAME

org_trustdetails

Show the details of an organizational trust.

usage: org_trustdetails TRUSTED_ORG

package_

The following spacecmd functions are available for working with packages.

package_details

Show the details of a software package.

usage: package_details PACKAGE ...

package_listdependencies

List the dependencies for a package.

usage: package_listdependencies PACKAGE
package_listerrata

List the errata that provide this package.

usage: package_listerrata PACKAGE ...

package_listinstalledsystems

List the systems with a package installed.

usage: package_listinstalledsystems PACKAGE ...

package_listorphans

List packages that are not in a channel.

usage: package_listorphans

package_remove

Remove a package from SUSE Manager/Satellite

usage: package_remove PACKAGE ...

package_removeorphans

Remove packages that are not in a channel.

usage: package_removeorphans

package_search

Find packages that meet the given criteria.

usage: package_search NAME|QUERY

Example: package_search kernel

Advanced Search
Available Fields: name, epoch, version, release, arch, description, summary

Example: name:kernel AND version:2.6.18 AND -description:devel
Command Line Tools

This section explains some command line tools such as mgrcfg-client, mgrcfg-manager, mgr-actions-control, or mgr-sync.

Command Line Tools on Traditional Clients

In addition to the Uyuni WebUI, Uyuni offers two command line tools for managing configuration files on traditional clients:

- The Configuration Client (mgrcfg-client, part of the `mgr-cfg-client package)
- The Configuration Manager (mgrcfg-manager, part of the mgrcfg-management package)

You can use the mgrcfg-actions-control tool (part of the mgrcfg-actions package) to enable and disable configuration management on client systems.

To work with these tools install them with the WebUI. Select the client’s details page, then check whether these packages are already installed; click System Details › Software › Packages › List/Remove and, for example, enter mgr- as a search term. If the packages are not listed here, click the Install sub-tab and select the packages for installation.

Configuration File Backups

When a configuration file is deployed via Uyuni, a backup of the previous file including its full path is stored in the /var/lib/rhncfg/backups/. The backup retains its filename but has a .rhn-cfg-backup extension appended.

Actions Control (mgrcfg-actions-control)

The Actions Control (mgrcfg-actions-control) application is used to enable and disable configuration management on a system. Client systems cannot be managed in this fashion by default. This tool allows Uyuni administrators to enable or disable specific modes of allowable actions such as:

- Deploying a configuration file on the system
- Uploading a file from the system
- Using the diff command to find out what is currently managed on a system with what is available
- Running remote commands

These various modes are enabled or disabled by placing or removing files and directories in the /etc/sysconfig/rhn/allowed-actions/ directory. Because of the default permissions of the /etc/sysconfig/rhn/ directory, Actions Control has to be run by someone with root access.
General command line options

There is a manpage available, as for most command line tools. First, decide which scheduled actions should be enabled for use by system administrators. The following options enable the various scheduled action modes:

--enable-deploy
    Allow mgrcfg-client to deploy files.

--enable-diff
    Allow mgrcfg-client to diff files.

--enable-upload
    Allow mgrcfg-client to upload files.

--enable-mtime-upload
    Allow mgrcfg-client to upload mtime (file modification time).

--enable-all
    Allow mgrcfg-client to do everything.

--enable-run
    Enable running scripts.

--disable-deploy
    Disable deployment.

--disable-diff
    Prohibit diff use.

--disable-upload
    No file uploads allowed.

--disable-mtime-upload
    Disable mtime upload.

--disable-all
    Disable all options.

--disable-run
    No scripts allowed to run.

--report
    Report whether modes are enabled or disabled.
**-f, --force**

Force the operation without asking first.

**-h, --help**

Show help message and exit.

Once a mode is set, your system is ready for configuration management through Uyuni. A common option is `mgr-actions-control --enable-all`.

**Configuration Client (mgrcfg-client)**

The Configuration Client (mgrcfg-client) is installed on and run from an individual client system to gain knowledge about how Uyuni deploys configuration files to the client.

The Configuration Client offers these primary modes:

- list
- get
- channels
- diff
- verify

**Listing Configuration Files**

To list the configuration files for the machine and the labels of the config channels containing them, issue the command:

```
mgrcfg-client list
```

The output resembles the following list ("DoFoS" is a shortcut for "D or F or S", which means "Directory", "File", or "Something else"(?)):

<table>
<thead>
<tr>
<th>DoFoS</th>
<th>Config Channel</th>
<th>File</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>config-channel-17</td>
<td>/etc/example-config.txt</td>
</tr>
<tr>
<td>F</td>
<td>config-channel-17</td>
<td>/var/spool/ailib.rpm</td>
</tr>
<tr>
<td>F</td>
<td>config-channel-14</td>
<td>/etc/rhn/rhn.conf</td>
</tr>
</tbody>
</table>

These configuration files apply to your system. However, there may be duplicate files present in other channels. For example, issue the following command:

```
mgrcfg-manager list config-channel-14
```

and observe the following output:
You may wonder why the second version of `/etc/example-config.txt` in config-channel-14 does not apply to the client system. The rank of the `/etc/example-config.txt` file in config-channel-17 was higher than that of the same file in config-channel-14. As a result, the version of the configuration file in config-channel-14 is not deployed for this system, therefore `mgrcfg-client` command does not list the file.

### Downloading a Config File

To download the most relevant configuration file for the machine, issue the command:

```
mgrcfg-client get /etc/example-config.txt
```

You should see output resembling:

```
Deploying /etc/example-config.txt
```

View the contents of the file with less or another pager. Note that the file is selected as the most relevant based on the rank of the config channel containing it. This is accomplished within the Configuration tab of the System Details page.

Refer to Section "System Details" (Chapter 4, Systems, User Guide) for instructions.

### Viewing Config Channels

To view the labels and names of the config channels that apply to the system, issue the command:

```
mgrcfg-client channels
```

You should see output resembling:

```
Config channels:
Label                   Name
-----                   ----
config-channel-17       config chan 2
config-channel-14       config chan 1
```

The list of options available for `mgrcfg-client get`:

```
--topdir=TOPDIR
    Make all file operations relative to this string.
```
**--exclude=EXCLUDE**

Exclude a file from being deployed with get. May be used multiple times.

**-h, --help**

Show help message and exit.

### Differentiating between Config Files

To view the differences between the config files deployed on the system and those stored by Uyuni, issue the command:

```
mgrcfg-client diff
```

The output resembles the following:

```
rhncfg-client diff  
--- /etc/test  
+++ /etc/test 2013-08-28 00:14:49.405152824 +1000  
@@ -1 +1,2 @@  
This is the first line  
+This is the second line added
```

In addition, you can include the `--topdir` option to compare config files with those located in an arbitrary (and unused) location on the client system, like this:

```
# mgrcfg-client diff --topdir /home/test/blah/  
/usr/bin/diff: /home/test/blah/etc/example-config.txt: No such file or directory  
/usr/bin/diff: /home/test/blah/var/spool/aalib.rpm: No such file or directory
```

### Verifying Config Files

To quickly determine if client configuration files are different from those associated with it via Uyuni, issue the command:

```
mgrcfg-client verify
```

The output resembles the following:

```
modified /etc/example-config.txt /var/spool/aalib.rpm
```

The file `example-config.txt` is locally modified, while `aalib.rpm` is not.

The list of the options available for mgrcfg-client verify:
-v, --verbose
Increase the amount of output detail. Display differences in the mode, owner, and group permissions for the specified config file.

-o, --only
Only show differing files.

-h, --help
Show help message and exit.

Configuration Manager (mgrcfg-manager)

The Configuration Manager (mgrcfg-manager) is designed to maintain Uyuni’s central repository of config files and channels, not those located on client systems. This tool offers a command line alternative to the configuration management features in the Uyuni WebUI. Additionally, some or all of the related maintenance tasks can be scripted.

To use the command line interface, configuration administrators require a Uyuni account (username and password) with the appropriate permission set. The username may be specified in /etc/sysconfig/rhn/rhncfg-manager.conf or in the [rhncfg-manager] section of ~/.rhncfgrc.

When the Configuration Manager is run as root, it attempts to pull in needed configuration values from the Red Hat Update Agent. When run as a user other than root, you may have to change the ~/.rhncfgrc configuration file. The session file is cached in ~/.rhncfg-manager-session to avoid having to log in for every command.

The default timeout for the Configuration Manager is 30 minutes. To adjust this, add the server.session_lifetime option and a new value to the /etc/rhn/rhn.conf file on the server running the manager. For example set the time out to 120 minutes:

```
server.session_lifetime = 120
```

The Configuration Manager offers the following primary modes:

- add
- create-channel
- diff
- diff-revisions
- download-channel
- get
- list
Each mode offers its own set of options, which can be displayed by issuing the following command:

```bash
mgrcfg-manager mode --help
```

Replace mode with the name of the mode whose options you want to see:

```bash
mgrcfg-manager diff-revisions --help
```

**Creating a Config Channel**

To create a config channel for your organization, issue the command:

```bash
mgrcfg-manager create-channel channel-label
```

If prompted for your Uyuni username and password, provide them. Once you have created a config channel, use the remaining modes listed above to populate and maintain that channel.

**Adding Files to a Config Channel**

To add a file to a config channel, specify the channel label and the local file to be uploaded:

```bash
mgrcfg-manager add --channel=channel-label /path/to/file
```

In addition to the required channel label and the path to the file, you can use the available options for modifying the file during its addition. For instance, you can alter the path and file name by including the `--dest-file` option in the command:

```bash
mgrcfg-manager add --channel=channel-label
  --dest-file=/new/path/to/file.txt/path/to/file
```

The output resembles the following:
Pushing to channel example-channel
Local file /path/to/file -> remote file /new/path/to/file.txt

The list of options available for mgrcfg-manager add:

- **c CHANNEL --channel=CHANNEL**
  Upload files in this config channel.

- **d DEST_FILE --dest-file=DEST_FILE**
  Upload the file as this path.

- **--delim-start=DELIM_START**
  Start delimiter for variable interpolation.

- **--delim-end=DELIM_END**
  End delimiter for variable interpolation.

- **-i, --ignore-missing**
  Ignore missing local files.

- **-h, --help**
  Show help message and exit.

---

**Maximum File Size**

By default, the maximum file size for configuration files is 128 KB. For information on changing the maximum file size value, see [Reference › Configuration ›](#).

---

**Differentiating between Latest Config Files**

To view the differences between the config files on disk and the latest revisions in a channel, issue the command:

```
mgrcfg-manager diff --channel=channel-label --dest-file=/path/to/file.txt /local/path/to/file
```

You should see output resembling:

```
--- /tmp/dest_path/example-config.txt config_channel: example-channel revision: 1
+++ /home/test/blah/hello_world.txt 2003-12-14 19:08:59.000000000 -0500
@@ -1 +1 @@
-foo
+hello, world
```

The list of options available for **mgrcfg-manager diff**: 
-c CHANNEL, --channel=CHANNEL

Get file(s) from this config channel.

-r REVISION, --revision=REVISION

Use this revision.

-d DEST_FILE, --dest-file=DEST_FILE

Upload the file at this path.

-t TOPDIR, --topdir=TOPDIR

Make all files relative to this string.

-h, --help

Show help message and exit.

Differentiating between Various Versions

To compare different versions of a file across channels and revisions, use the -r flag to indicate which revision of the file should be compared and the -n flag to identify the two channels to be checked. Specify only one file name here since you are comparing the file against another version of itself. For example:

```
mgrcfg-manager diff-revisions -n=channel-label1 -r=1 \n -n=channel-label2 -r=1 \n /path/to/file.txt
```

The output resembles the following:

```
--- /tmp/dest_path/example-config.txt 2004-01-13 14:36:41 \n config channel: example-channel2 revision: 1
--- /tmp/dest_path/example-config.txt 2004-01-13 14:42:42 \n config channel: example-channel3 revision: 1
@@ -1 +1,20 @@
-foo
+blah
+-----BEGIN PGP SIGNATURE-----
+Version: GnuPG v1.0.6 (GNU/Linux)
+%Comment: For info see http://www.gnupg.org
+ +iD8DBQA9ZY6vse4Xmf3PgwRAsHcAJ9ud9dabUcdscdcqB8AZP7e0Fua0NnmKsdhQCeOWHX
+VsDTfen2NWdwmPaTM+S+Cow=
+==Ltp2
+-----END PGP SIGNATURE-----
```

The list of options available for `mgrcfg-manager diff-revisions`:

- **-c CHANNEL, --channel=CHANNEL**
  Use this config channel.

- **-r REVISION, --revision=REVISION**
Use this revision.

-h, --help
Show help message and exit.

Downloading All Files in a Channel

To download all the files in a channel to disk, create a directory and issue the following command:

```
mgrcfg-manager download-channel channel-label --topdir .
```

The output resembles the following:

```
Copying /tmp/dest_path/example-config.txt -> \\
blah2/tmp/dest_path/example-config.txt
```

The list of options available for mgrcfg-manager download-channel:

- **-t TOPDIR, --topdir=TOPDIR**
  
  Directory to which all the file paths are relative. This option must be set.

- **-h, --help**
  
  Show help message and exit.

Getting the Contents of a File

To direct the contents of a particular file to stdout, issue the command:

```
mgrcfg-manager get --channel=channel-label \\
/tmp/dest_path/example-config.txt
```

You should see the contents of the file as the output.

Listing All Files in a Channel

To list all the files in a channel, issue the command:

```
mgrcfg-manager list channel-label
```

You should see output resembling:

```
Files in config channel 'example-channel3':
/tmp/dest_path/example-config.txt
```
The list of the options available for mgrcfg-manager get:

-\texttt{c CHANNEL, --channel=CHANNEL}  
Get file(s) from this config channel.

-\texttt{t TOPDIR, --topdir=TOPDIR}  
Directory to which all files are relative.

-\texttt{r REVISION, --revision=REVISION}  
Get this file revision.

-\texttt{h, --help}  
Show help message and exit.

Listing All Config Channels

To list all of your organization’s configuration channels, issue the command:

\texttt{mgrcfg-manager list-channels}

The output resembles the following:

Available config channels:  
example-channel example-channel2 example-channel3 config-channel-14 config-channel-17

This does not list local\_override or server\_import channels.

Removing a File from a Channel

To remove a file from a channel, issue the command:

\texttt{mgrcfg-manager remove --channel=channel-label /tmp/dest\_path/example-config.txt}

If prompted for your Uyuni username and password, provide them.

The list of the options available for mgrcfg-manager remove:

-\texttt{c CHANNEL, --channel=CHANNEL}  
Remove files from this config channel.

-\texttt{t TOPDIR, --topdir=TOPDIR}  
Directory to which all files are relative.
Deleting a Config Channel

To remove a config channel in your organization, issue the command:

```bash
gmgrc-config-manager remove-channel channel-label
```

The output resembles the following:

```
Removing config channel example-channel
Config channel example-channel removed
```

Determining the Number of File Revisions

To find out how many revisions (from 1 to N where N is an integer greater than 0) of a file/path are in a channel, issue the following command:

```bash
gmgrc-config-manager revisions channel-label /tmp/dest_path/example-config.txt
```

The output resembles the following:

```
Analyzing files in config channel example-channel \
/tmp/dest_path/example-config.txt: 1
```

Updating a File in a Channel

To create a new revision of a file in a channel (or to add the first revision to that channel if none existed before for the given path), issue the following command:

```bash
gmgrc-config-manager update --channel=channel-label \
--dest-file=/path/to/file.txt /local/path/to/file
```

The output resembles the following:

```
Pushing to channel example-channel: 
Local file example-channel /tmp/local/example-config.txt -> \
remote file /tmp/dest_path/example-config.txt
```

The list of the options available for `gmgrc-config-manager update`:

```
-c CHANNEL, --channel=CHANNEL
```
Upload files in this config channel.

-d DEST_FILE, --dest-file=DEST_FILE
Upload the file to this path.

-t TOPDIR, --topdir=TOPDIR
Directory to which all files are relative.

--delim-start=DELIM_START
Start delimiter for variable interpolation.

--delim-end=DELIM_END
End delimiter for variable interpolation.

-h, --help
Show help message and exit.

Uploading Multiple Files at Once

To upload multiple files to a config channel from a local disk at once, issue the command:

```
mgrcfg-manager upload-channel --topdir=topdir channel-label
```

The output resembles the following:

```
Using config channel example-channel4
Uploading /tmp/ola_world.txt from blah4/tmp/ola_world.txt
```

The list of the options available for mgrcfg-manager upload-channel:

-t TOPDIR, --topdir=TOPDIR
Directory all the file paths are relative to.

-c CHANNEL, --channel=CHANNEL
List of channels the config info will be uploaded into channels delimited by '.': Example: --channel=foo,bar,baz.

-h, --help
Show help message and exit.

Synchronize Repositories with spacewalk-repo-sync

The spacewalk-repo-sync tool synchronizes software repositories into Uyuni channels. This usually happens automatically, but you can run it manually if required. This can be useful for debugging or for solving some synchronization problems.
Normal Channel Synchronization

Basic operation:

`spacewalk-repo-sync --list`

List all custom channels and the repositories assigned to them.

`spacewalk-repo-sync --channel <custom-channel>`

Synchronize a single channel `<custom-channel>` to all repositories assigned to it with the WebUI or the API.

Solve Checksum Problems

Use the `--deep-verify` option to ignore cached package checksums. This can help with solving checksum problems.

Force Re-import Patches

Use the `--force-all-errata` option to force re-importing all the patches. To make this command run faster, you can use the `--no-packages` option. This option excludes packages from the operation.

To find the root cause of synchronization problems you can look at the HTTP log as `spacewalk-repo-sync` is running.

1. Set and export `ZYPP_MEDIA_CURL_DEBUG`. This setting will allow downloading the metadata output by Zypper. Thus the following command will log the HTTP conversation into `/var/log/zypper.log`:

   ```bash
   ZYPP_MEDIA_CURL_DEBUG=2 spacewalk-repo-sync --channel <channel-label>
   ```

2. Set and export `URLGRABBER_DEBUG` for the RPM downloading part:

   ```bash
   export URLGRABBER_DEBUG=DEBUG
   ```

3. Start the synchronization:

   ```bash
   /usr/bin/spacewalk-repo-sync --channel <channel-label> --type yum
   ```

   To increase the debug level, add the `-vvv` option.

   When debugging is finished, disable debug mode:
Add Custom Extra HTTP Headers

It is possible to add custom HTTP headers to the requests made by `spacewalk-repo-sync` at the time of repository and package synchronization.

The custom HTTP headers are defined in the `/etc/rhn/spacewalk-repo-sync/extra_headers.conf` configuration file. The headers can be defined by repository name, or channel label. You can also define global headers by putting them in the `main` section:

```
[testchannel]
X-MY-HEADER-1=VALUE
X-MY-HEADER-2=VALUE

[mychannel]
X-MY-HEADER-3=VALUE
X-MY-HEADER-4=VALUE

[main]
X-MYGLOBAL-HEADER=VALUE
```

This can be particularly useful when dealing with Red Hat Update Infrastructure (RHUI) repositories in the public cloud.

For More Information

For a complete list of command line options, see the `spacewalk-repo-sync` manpage:

```
man spacewalk-repo-sync
```

Synchronize Repositories from SCC (mgr-sync)

`mgr-sync` should be used if Uyuni is connected to SUSE Customer Center (SCC). With `mgr-sync` you may add or synchronize products and channels. The `mgr-sync` command also enables and refreshes SCC data.

By default, `mgr-sync` writes basic debug information to `/var/log/rhn/mgr-sync.log`. Get more debugging information with `--debug` or by adding `mgrsync.debug = <DEBUGLEVEL>` to `/etc/rhn/rhn.conf`. Settings in `~/.mgr-sync` will supersede values from `rhn.conf`. For example, if you set

```
mgrsync.debug = ""
```

in `~/.mgr-sync`, the value in `rhn.conf` will have no effect.
Admin credentials

`mgr-sync` requires username and password of a **Uyuni administrator**. Most functions are available as part of the public API.

`mgr-sync` provides a command structure with sub-commands similar to git or osc. For a complete list of command line option, see the `mgr-sync` manpage (man `mgr-sync`). Basic actions are:

```plaintext
mgr-sync list channel(s)|product(s)|credentials
mgr-sync add channel(s)|product(s)|credentials
mgr-sync delete credentials
mgr-sync refresh [--refresh-channels] [--from-mirror MIRROR]
```

See the following examples.

**List channels**

```plaintext
mgr-sync list channels
```

**Add a channel**

```plaintext
mgr-sync add channel LABEL
```

**List products**

```plaintext
mgr-sync list products
```

**Add a product**

```plaintext
mgr-sync add product
```

**Refresh the data**

```plaintext
mgr-sync refresh
```

**Refresh data and schedule a reposync for all installed vendor channels**

```plaintext
mgr-sync refresh --refresh-channels
```

**List SCC credentials**

```plaintext
mgr-sync list credentials
```

**Add new SCC credentials**

```plaintext
mgr-sync add credentials
```
Credentials

There can be one primary credential only. This is username/password used first when retrieving the list of available channels and packages.

Add SCC primary credentials

```
mgr-sync add credentials --primary
```

Delete SCC credentials

```
mgr-sync delete credentials
```

Configuring the Database (smdba)

Uyuni provides the smdba command for managing the installed database. It is the successor of db-control, which is now unsupported.

The smdba command works on local databases only, not remote. This utility allows you to do several administrative tasks like backing up and restoring the database. It also allows you to create, verify, restore backups, obtaining database status, and restart the database if necessary. The smdba command supports PostgreSQL.

Find basic information about smdba in the smdba manpage.

Restart Spacewalk Services When Connection is Lost

If you have stopped or restarted the database, Spacewalk services can lose their connections. In such a case, run the following command:

```
spacewalk-service restart
```

Control Options

Depending on the database installed, smdba provides several subcommands:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>backup-hot</td>
<td>Enable continuous archiving backup</td>
</tr>
<tr>
<td>backup-restore</td>
<td>Restore the {productname} Database from backup.</td>
</tr>
<tr>
<td>backup-status</td>
<td>Show backup status.</td>
</tr>
<tr>
<td>db-start</td>
<td>Start the {productname} Database.</td>
</tr>
<tr>
<td>db-status</td>
<td>Show database status.</td>
</tr>
<tr>
<td>db-stop</td>
<td>Stop the {productname} Database.</td>
</tr>
<tr>
<td>space-overview</td>
<td>Show database space report.</td>
</tr>
<tr>
<td>space-reclaim</td>
<td>Free disk space from unused object in tables and indexes.</td>
</tr>
<tr>
<td>space-tables</td>
<td>Show space report for each table.</td>
</tr>
<tr>
<td>system-check</td>
<td>Common backend healthcheck.</td>
</tr>
</tbody>
</table>

For a list of available commands on your particular appliance, call smdba help. To display the help
message for a specific subcommand, call `smdba COMMAND help`.

Starting and Stopping the Database

There are three commands to start, stop, or get the status of the database. Use the following commands:

```bash
# smdba db-status
Checking database core... online
# smdba db-stop
Stopping the {productname} database... done
Stopping core: done
# smdba db-status
Checking database core... offline
# smdba db-start
Starting listener: done
Starting core... done
```

Creating a Bootstrap Repository (mgr-create-bootstrap-repo)

The `mgr-create-bootstrap-repo` command is used on the Uyuni Server to create a new bootstrap repository.

Use the `-l` option to list all available repositories:

```bash
# mgr-create-bootstrap-repo -l
```

You can then invoke the command with the appropriate repository name to create the bootstrap repository you require, for example:

```bash
# mgr-create-bootstrap-repo SLE-version-x86_64
```

Creating a Bootstrap Repository with Custom Channels

Custom channels are channels that have been created to manage any custom packages that an organization might require. To create a new bootstrap repository from a custom channel, use the `mgr-create-bootstrap-repo` command with the `with-custom-channels` option:

```bash
# mgr-create-bootstrap-repo --with-custom-channels
```
Flush a Bootstrap Repository to Remove Custom Channels

If you create a bootstrap repository that contains custom channels, and later attempt to rebuild with the `mgr-create-bootstrap-repo` command, the custom channel information will remain in the bootstrap repository. If you want to remove custom channel information from your bootstrap repository, you will need to use the `flush` option when you rebuild:

```bash
# mgr-create-bootstrap-repo --flush
```
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